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NEW SOUTH WALES

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DEPARTMENT OF EDUCATION

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COURSE OF INSTRUCTION

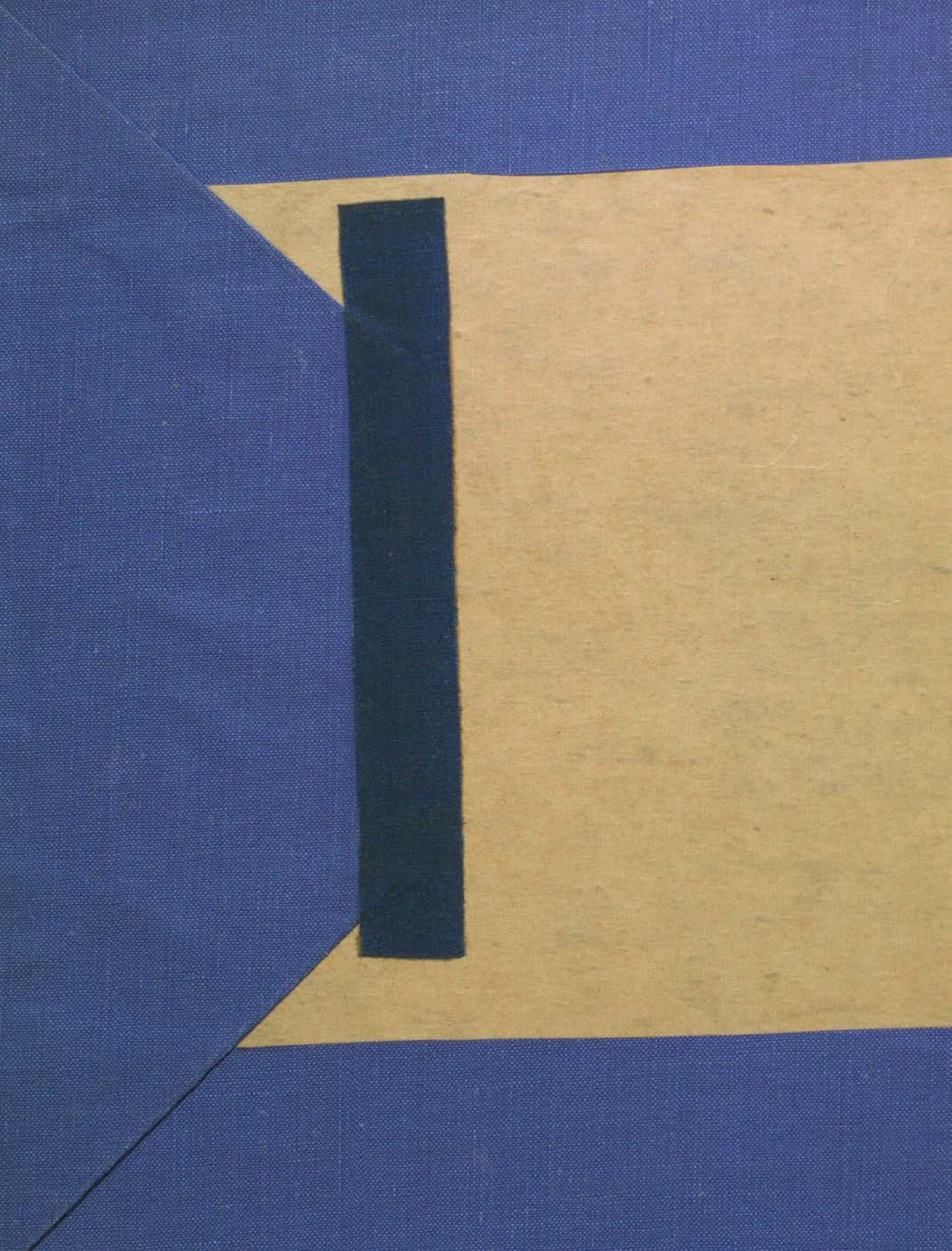
FOR

PRIMARY SCHOOLS

(ISSUED 1922.)

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## NEW SOUTH WALES.

## DEPARTMENT OF EDUCATION.

## PREFACE.

BEHIND the use of a Syllabus of Instruction there stands the teacher's conception of the function of a school. It is what he conceives that to be, that shapes the whole of his work as a teacher. It determines the spirit in which he works, the methods he employs, and the aims he keeps in view.

This syllabus is, therefore, prefaced by the definition that the function of the school is to supply the circumstances and conditions most favourable to the growth of each child. The teacher cannot cause the child to grow either in body or in mind. The process of growth is essentially the child's own. It is not the teacher's. The teacher and the school do, however, create conditions that foster or retard the growth of the child. The school is the agency by which the child's growing proceeds under helpful conditions. Hence it supplies him with material to work with. It supplies experiences that enrich his store of experiences. It encourages the formation of habits, muscle and nerve habits, thought habits and emotion habits. It affords opportunity for his interests to find expression in healthy forms. In all these things the school supplies the externals. The active force is the child's own. It is the child's own thinking and feeling and appreciating and imagining that count towards his growth, and not what he is told to think, or to feel, or to appreciate, or to imagine.

The syllabus is intended as a guide to teachers in organizing the material by which the school fulfils this function. In its compilation regard has been paid to the higher degree of professional training that an increasing number of teachers are now able to bring to their work.

A wider choice of subject matter is afforded by the provision of more lesson material than can be used by any one teacher with any one group of children.

The time has gone by when the large majority of teachers should look for the narrow specification of the subject matter of their teaching. Out of what this syllabus provides various courses may be made, any one of which will give to the pupil the degree of training possible to each pupil in the primary stage of his education:



The teacher's choice will be determined by various considerations—the suitability of the matter to the environment of the pupils, the facilities afforded by the situation and surroundings of the school, and the specialised knowledge which the teacher himself may possess. There will, therefore, be a call upon the teacher to select from the syllabus the material for the instruction of his classes, and arrange it in his programmes of work so as to make a co-ordinated scheme of instruction.

Throughout the syllabus teachers will find suggestions as to methods of treatment. No particular method of teaching any part of a subject is imposed, but where a method is indicated it may be regarded as one which experience has shown to be effective. It is recognised, however, that teachers have found other methods to be successful. The method to be employed is that which the teacher finds to be for him the most useful instrument in securing the result to be aimed at in his teaching. Especially in the more mechanical stages of reading, writing, and arithmetic, the teacher who finds that he can arrive at the desired result by means other than those indicated by the notes in this syllabus should use those means that are the most effective in his hands.

In schools of more than one teacher the wider range of choice afforded by the syllabus makes it necessary that the work of various classes should be so co-ordinated that the school as a whole will be a unity aiming at the unbroken progress of the pupils through the various years of the school course.

The responsibility for such an organization as will secure to each child the rate of progress corresponding to his capacity rests with the Head of the school or department, while it rests with every member of the staff to be not merely a class teacher, but a contributor to the welfare of the school as a whole. In cases of doubt as to the wisest plan to follow in any arrangement of work the advice and assistance of the Inspector will always be available.

The course of instruction followed in the schools is intimately related to the plan of organisation and the methods of government. Where the organisation is based upon a rigid classification that relies upon an equal rate of progress of all pupils, or assumes that children of equal age are capable of the same degree of subject mastery, the achievements of the school, as far as the course of instruction is concerned, are impeded.

In each class the majority of the children will be found of an approximately uniform age, but the teacher needs to know which individual pupils are backward for their years and the causes of their backwardness, and which individual pupils, on account of a higher degree of natural endowment, are capable of more rapid progress than the rest.

The average age of a class is, therefore, not a useful guide to the teacher. It is, however, necessary, in order that the real progress of the pupils through the course of instruction may be known, that the teacher should have before him the number of those who are of the normal age and the distribution of the remainder above and below that age.



The methods of government also affect the passage of the pupils through the school. In the more advanced classes especially the amount of self-dependent work done by the pupils will vary according to the facilities afforded by the material equipment of the school and by the skill of the teacher in securing the profitable use of the free time which he can allow to the pupils. Both these conditions vary too much to admit of any hard-and-fast rule being laid down, but in the higher classes, at least, the provision made for the doing of useful work by the pupils apart from class instruction will have an important bearing upon their mental growth and progress. The use of these periods of individual study will be found to be governed largely by the extent to which the teacher finds he can admit the pupils to a share in the management of school and class concerns.

The work of the Primary School is rounded off in the Sixth Class. The course of instruction for that class, in order to be effectively completed, implies that the work of all the preceding classes has been efficient. If that has been so the Sixth Class work should occupy the majority of the pupils for one year only. By the time a pupil reaches that class the habits upon which the mechanical processes of schooling depend should have been acquired. In the Sixth Class the value of the teaching will be shown not merely by the body of useful knowledge acquired, but also, and mainly, by the intelligence which has been exercised in acquiring it, and by the degree of personal culture that has resulted from it.

P. BOARD,

Director of Education.

Sydney,

6th January, 1922.



## GENERAL NOTES ON THE SYLLABUS.

### ORGANIZATION.

THE organization of a school, as far as it is in the hands of the teacher, is mainly concerned with the distribution of the school time as shown by the time-table, the detailed schemes of instruction as indicated in the programmes, the classification of the pupils, and the mechanical arrangements for facilitating the operations of the school, and for aiding the work of instruction.

In schools under one teacher, the main difficulty that presents itself is that of providing for the continuous and profitable employment of all the pupils during the whole of the school time.

To meet this difficulty it will be necessary to divide the primary school period of six years into two three-year periods, the lower division to contain pupils of the first, second, and third years, and the upper division pupils of the fourth, fifth, and sixth years.

The time-table should be so arranged that each section may get its share of the teacher's direct attention in both reading and arithmetic, while at the same time the other sections and their divisions are profitably employed in silent work. The silent work will embrace writing, arithmetic, silent reading, composition, transcription, drawing, and (in upper division) map-making.

The previous preparation by the teacher of the day's lessons, and the preliminary laying out of material so that it may be readily obtainable, will contribute to economy of time and the smooth working of the school.

Both divisions of the school may be combined for observation and picture talks, moral stories, and daily physical exercises, these being treated in lessons of about ten minutes each. In these, as well as the combined lessons on Nature Knowledge, Scripture, Singing, History, &c., the teacher needs to adapt the lessons at various points to the powers of the various sections of his school.

The work will be so arranged that whilst pupils will not cover the work in the order set down year by year in the Syllabus, they shall cover within each triennial period a full three years' course, the combination of classes making it possible to provide fresh subject-matter all the time, for each portion of the combined class. As an example, take Nature Study. All the pupils of the upper division will be grouped together for this lesson. Then for one year their subjects for study will be selected from the work set down in the Syllabus for Class 4. The following year they will all take topics as set down for Class 5, and again, next year, they will all study the subjects prescribed for Class 6. Thus, within the triennial period, work set down



for Classes 4, 5, and 6 will be covered, though not perhaps in the same order as in large schools where there are separate classes corresponding with each school year.

And so with similar subjects, both in lower and upper division.

But such modifications of this scheme should be made as will provide that pupils during their last year of primary work will study those portions of English, Mathematics, History, and Geography which are set down in the Syllabus for Sixth Class.

#### **Senior Pupils may Study from Text-books.**

To meet the case of pupils who have reached a standard beyond the majority of upper division, without taking the teacher away unduly from the rest of his school, they should be allowed to study from books in those subjects in which they are too far advanced to make their working with the others profitable. The teacher should, however, see that the study of these text-books is not mere memorizing, but that the sense of what is read is intelligently grasped. The systematic making of notes of what is read will be found useful, the notes afterwards forming the material on which a composition exercise is based.

#### **Programmes of Lessons : Their Object.**

In the construction of programmes of lessons it should be kept in view that the purpose of these documents is to provide a methodically arranged and graded course of lessons for a definite period, so that fresh subject-matter may be introduced in proper order, and the course of instruction be systematically progressive. This work needs to be distributed over successive periods of time in order of difficulty or development. The class programmes should be made out for periods of three months (divided into monthly sections), and all programmes should be carefully preserved in the school, for the Inspector's information, for a period of at least two years from the date of their compilation.

#### **Programmes of Lessons : Their Scope and Limitations.**

Where a year's work is shown in the Syllabus, it should be divided equally between the four quarters. It is not necessary to indicate in the programme any methods of teaching or any directions of a general character which are already given in the Syllabus and are applicable, not to particular lessons, but to all lessons given in one subject. For example, in connection with Reading, the oral expression of the subject-matter is a feature that should enter into all reading lessons, and the statement of it in the programme is not necessary, the function of the programme being to supply *details* of work for each month. The programme in English in Third Class, for instance, would show for each month, in addition to the reading of the School Magazine, the supplementary reading for the month, the special points in spelling and word-building to



receive attention, the special feature in sentence construction and the functions of words to be treated, and the portion of the graded course in writing. In Mathematics would be shown the new features to be treated in oral work and in written work in Arithmetic, and the fresh work to be done with the use of instruments. The programme in Nature Knowledge would show the definite subjects for the lessons under this head for the month. The Syllabus and the programmes together will thus guide and systematize the instruction, the former supplying the general directions to be observed, and the latter the details of monthly work. These details should be stated in as concise a form as possible. The programmes should also make provision for systematic periodical revision.

### The Lesson Registers and Inspection.

The Lesson Register should show the specific lessons and the scope of the instruction given in each subject in each week, to each class and section of class in the school.

### The Time-table.

The following is an approximate distribution of time in hours per week for schools with more than one teacher :—

Classes.	1	2	3	4	5	6
English ... ..	10	10	8	8	7	7
Mathematics ... ..	3	3	4	4	4	4
Nature Knowledge ... ..	2	2	2½	2½	2½	3
Morals and Civics ... ..	1½	1½	2½	2½	3	3
Art ... ..	1½	1½	1½	1½	1½	1½
*Manual Work ... ..	2	2	2	2	2	2
Music ... ..	1½	1½	1½	1½	1½	1½
Physical Training ... ..	2	2	2	2	2	2
	23½	23½	23½	23½	23½	23½

\* Manual Work includes Needlework for girls.

### Note.

1. The above distribution of time is intended to serve as a general guide to the teacher to indicate the relative proportion of school time to be devoted to the various branches of study. It cannot be rigidly adhered to in all schools, and may therefore receive such modifications as the circumstances of each school require, a general approximation to this allocation of time being observed.

2. When the school receives visits from clergymen, for the purpose of special religious instruction, the amount of school time to be devoted to secular instruction should be correspondingly reduced.



## ENGLISH.

## ENGLISH.

### Prefatory Note.

The following are some of the ideas underlying this Syllabus in English:—

(1) That the child is an individual with a life force within him which continually urges him—

(i) To absorb such parts of his environment as meet his needs of growth;

(ii) To express his growth by creative activity, mental and physical.

Hence (A) Among the teacher's functions one of prime importance is the provision for the child of—

(i) a steady stream of varied nutritive material,

(ii) tools that facilitate creative activity.

(B) The child should have the fullest opportunity for self direction, strengthening his will by planning some, and effecting much, of his own education, at times individually, at times with his classmates; opportunity for exercising initiative, weighing relative values, and organising his ideas for himself instead of being dominated by his teacher.

(C) A further function of the teacher, after he has given the child opportunity to gain experience, is to lead him to reflect upon it.

(2) That the child is social in nature and requires society to stimulate him to his maximum of self development.

Hence (A) The school organisation should provide—

(i) an audience for the child who is expressing his ideas;

(ii) a group to co-operate with him in his social activities.

(B) The boy's schooling as a part of life, should be linked up as fully as possible with the life of the community. The realities of the out-of-school social environment should replace as far as possible the unrealities sometimes found in the class room.

(3) That the mother tongue is an incomparable implement for the achievement of these ends.

Hence (A) The Primary School should give the pupils a reasonable command of the school arts of—

(i) Speaking

(ii) Reading

(iii) Writing

(iv) Spelling

(v) Composing.

(B) The English teaching should function in all parts of the school work, finding applications in History, Geography, Nature Study, Civics, and so on, as well as in Reading and Literature.



- (4) That literature is one main factor in the child's culture, bringing him into contact with the best that has been thought and said and so increasing his knowledge of human nature and adding to the stock of ideas about life gained from his personal social experience.

Hence (A) Every child before leaving the Primary School should be familiar with the great children's classics and children's versions of the myths, legends and stories on which art and literature are largely based.

- (B) The child's memory should become a storehouse of beautiful things drawn from the literature of folk-lore.

- (5) That self-expression is a fundamental need of the child.

Hence (A) The teacher should aim at securing an honest expression of what the child is really thinking rather than mere echoes of the teacher's own opinions.

- (B) Though expression finds its master tool in the mother tongue, this must be freely aided by gesture, dramatic play, art and manual work.

- (6) That habit-forming is an important part of education and its laws should be observed in all teaching.

Hence (A) Desirable connections should be fixed into habits in the pupils by well planned exercises, but no wrong connection allowed to develop into a habit which has later to be eliminated.

- (B) Whatever should be done at all times the same way should be made a habit, *e.g.*, pronunciation, writing, spelling, punctuation, capitalisation.

NOTE.—The Syllabus indicates that it is expected that certain matters of form shall be fixed as habits before pupils leave certain classes. Pupils will of course have *begun* to form these habits much earlier.

- (7) That freedom is no less important for the teacher than for the pupil.

Hence (A) There is no prescription of methods of teaching.

- (B) Exercises suggested in the Syllabus to secure certain ends need not be given where a teacher prefers other means of reaching the same ends.



PRIMARY SYLLABUS.

ENGLISH,

1ST CLASS.

*Reading and Literature.*

NOTES.

(1) A large variety of reading matter in script and print chosen from various sources (a) in addition to the Primers used.

(1) *Standard*.—The standard of reading matter should be that of the Primer.

(1) *Tests*.—(I) Oral reading. (II) Giving substance of reading matter in children's own words. (III) Carrying out simple written directions. (IV) Dramatising a reading lesson, or part of one. (V) Writing freely from memory words from matter read. (VI) Labelling exercises.

(1) (a) *e.g.* Children's conversations, rhymes, stories, play activities.

(2) *Story-telling*.—Nursery stories, fairy tales, myths, fables, stories about the home, animals, &c., Bible stories.

(2) See Mrs. Bryant's "How to Tell Stories to Children," and similar books for suggestions.

(3) *Poetry*.—Nursery rhymes and jingles; simple poems of home and nature; of childish wonder and aspiration; favourite rhymes, jingles, and poems, to be memorised.

(3) Reading or recitation by the teacher should be a daily practice. See page 16.

*Oral Expression.*

A.

(1) Encouragement of free conversation between teacher and children on the children's interests and experiences.

(1) See pages 34, 35.

(2) Talks on pictures and blackboard sketches.

(2) See pages 34, 35.

(3) Reproduction of stories from a series of pictures: by sand tray or floor game; by dramatization.

(3) See page 36.

(4) Practice in re-telling stories.

(4) A pleasing version of the story should result, as it becomes a class possession.

(5) Children's talks in connection with their free drawing and modelling.

(6) Games involving speech.

B.

(1) Play exercise in speech-sounds.

(1) Guard against habits of nasal speech, drawling, inaudible speech, and bad pitch of voices at all times. See page .

(2) Correction of errors in the ordinary speech of the children.

(2) See pages 38-41.



*Written Expression.*

Reproduction of a sentence from memory.

*Spelling.*

Phonetic words and common sight words.

Teacher to keep a list.

*Writing.*

(1) Practice on Montessori lines to gain power of control.

(1) See page 56.

(2) Free drawing of script letters.

(3) Writing words from memory.

(4) Writing symbols for sounds taught.

## 2ND CLASS.

*Reading and Literature.*

(1) A large variety of reading matter, prose and verse, in script and print, chosen from various sources, in addition to the Readers used.

(1) *Standard*.—Reading matter of 1st Reader difficulty.

(1) *Tests*.—(I) Oral reading; (II) giving substance of matter read in children's own words; (III) carrying out simple written directions; (IV) dramatising a reading lesson or part of one.

(2) *Story-telling*.—Fairy stories, myth, fables, stories of everyday life, stories of our own and other lands, folk stories, legends, Bible stories.

(2) See books like Mrs. Bryant's "How to Tell Stories to Children."

(3) *Poetry*.—Rhymes and jingles; simple poems of home and nature, of childish wonder and aspiration, favourite rhymes, jingles, and poems, to be memorised.

(3) Reading or recitation of poems by the teacher should be a daily practice.

*Oral Expression.*

## A.

(1) Encouragement of free conversation between teacher and children on the children's interests and experiences.

(1) See pages 34, 35.

(2) Free statement of personal experiences.

(3) Talks on pictures and black-board sketches.

(3) See pages 34, 35.

(4) Reproduction of stories from a series of pictures; by sand-tray or floor game; by dramatization.

(4) See pages 34, 35.

(5) Practice in re-telling stories.

(5) A pleasing version of the story should result, as it becomes a class possession.

(6) Practice in using correct forms of speech in greetings, requests, messages, &c.



B.

- |   |                      |
|---|----------------------|
| (1) Phonic exercises aiming at rousing interest in the speech organs. | (1) See pages 27-30. |
| (2) Exercises to correct common errors in the children's speech.      | (2) See pages 38-42. |

*Written Expression.*

A.

- |  |                       |
|--|-----------------------|
| (1) Free composition on toys, pets, actions, games, excursions, from oral stories, &c. | (1) See pages 35, 36. |
|--|-----------------------|

B.

- |   |   |
|---|---|
| (1) Writing single sentences in correct form.         |   |
| (2) Exercises to correct common errors in language.   | (2) List of errors dealt with to be kept.   |
| (3) Correct use of capital, full stop, question mark. | (3) See pages 44, 45.   |
| (4) Filling in omitted words in sentence.             | (4) <i>e.g.</i> —(I) Generally to make sense; (II) special test, <i>e.g.</i> , <i>there</i> or <i>their</i> ; (III) to get right number of subject for <i>is, are, was, were, has, &amp;c.</i> , or right form of verb for subject. |

*Spelling.*

- |   |   |
|---|---|
| A growing command of phonetic and common sight words, particularly of words in universal use. | Teacher to keep list of words taught.   |
|   | <i>Tests.</i> —(I) Composition—by which will be best shown what power to spell has been achieved; (II) filling in missing words; (III) dictation; (IV) free reproduction of difficulties recently overcome. |

*Writing.*

- |  |   |
|--|---|
| (1) In books with pencil.  | (1) If manuscript writing is taught, pen and ink may be introduced in this class. |
| (2) Practice of correct letter shapes to secure facility.  | (2) No child to be allowed to form wrong habits in writing.                       |
| (3) Individual writing drill to secure correct shapes.   | (3) See pages 56, 57.   |
| (4) Application of power to write— <i>e.g.</i> (a) producing fair copies of composition; (b) reproducing poems and rhymes. | (4) See page 57.  |



## 3RD CLASS.

*Reading and Literature.*

## NOTES.

(1) School Magazine and approved books.

(1) *e.g.* Fairy tales, fables, folk stories, legends, myths, poetry, stories of every day life and adventure, stories of our own and other lands.

(2) Reading by teacher and individual pupils of suitable poems and stories chosen from other sources than (1) above.

(2) There should be much silent reading.

(3) Favourite poems, whole or in part, and mottoes, to be memorised.

(3) Revise rhymes and poems learned in the infants' school.

*Oral Expression.*

## A.

(1) Free class conversation.

(1) Care should be taken to secure correct pronunciation, accurate use of words and sentences, and completeness of thought expression.

(2) Talks, as in 2nd class.

(3) Giving the substance of reading and other lessons.

(4) Practice in connected oral expression.

(4) Story-telling should be cultivated in every class.

(5) Practice in using correct forms of speech in greetings, requests, messages.

(6) Dramatization.

(6) See page 36.

## B.

(1) Exercises to correct common errors in children's speech.

(1) Lists of errors dealt with to be kept.

(2) Daily phonic exercises based on outstanding defects in speech.

(2) See pages 27-30.

*Written Expression.*

## A.

(1) Free composition on topics which appeal specially to the direct interests of children.

(1) See pages 32-34.

(2) Personal Letters.

(2) Teacher to supply correct form.

## B.

(1) Lessons in the composition of a series of short sentences on a single topic.

(1) Team work is recommended to secure sequence and variety in sentence forms.

(2) Use of capitals in initials, days of the week, holidays, names of places, the word O.

(2) See pages 44-46.



(3) *Punctuation*: Full stop, question mark, apostrophe in common abbreviations; simple forms of possessive.

(4) *Exercises* to correct errors in language.

(3) See pages 45-46.

(4) Elliptical exercises are recommended. Teacher to keep list of errors dealt with.

*Spelling.*

Power to spell the growing vocabulary the child needs to express himself in writing.

Class and individual lists to be kept. The class list to be sent on when the class passes to another teacher.

*Writing.*

(1) In books with pen and ink.  
(2) Practice to secure facility.  
(3) Individual writing drill.  
(4) Applications of the power to write—*e.g.*, (a) producing fair copies of composition; (b) reproducing poems.

(5) Exercises to fix habits enumerated under Written Expression B (2) and (3).

(2) See page 57.

(3) See page 56.

(4) See page 57.

(5) See pages 44-46.

4TH CLASS.

*Reading and Literature.*

(1) School Magazine and approved books.

(2) Reading by teacher and individual pupils of poems and stories chosen from other sources than (1) above.

(3) Favourite poems, whole or in part, mottoes and proverbs, to be memorised.

(4) Encouragement of home reading.

(5) Dictionary practice: (a) The alphabet; (b) arranging words in alphabetical order.

(1) Not less than six books might be expected to be read during the year from fields similar to those set out in 3rd class. One or two at least should be children's classics; one should be a book of poetry in use throughout the year.

There should be much silent reading, and much free choice reading.

(2) See page 16.

(3) Revise poems and mottoes learned in Class 3.

(4) Encourage reading aloud in the family circle.

(5) See pages 26-27.



*Oral Expression.*

## A.

- |  |  |
|--|--|
| (1) Class talks and conversations.                     | (1) Care should be taken to secure correct pronunciation, accurate use of words and sentences, completeness of thought expression, and pleasing style of delivery and of attitude. |
| (2) Giving the substance of reading and other lessons. |  |
| (3) Practice in connected oral expression.             | (3) See page 43.   |
| (4) Dramatization.                                     | (4) See page 36.   |
| (5) Demonstration by one class to another.             | (5) See page 33.   |

## B.

- |   |  |
|---|--|
| (1) Exercises to correct common errors in children's speech.  | (1) Teacher to keep list of errors dealt with. |
| (2) Further daily phonic exercises to secure improved speech. | (2) See page 27.                               |

*Written Expression.*

## A.

- |   |   |
|---|---|
| (1) Free composition on topics which appeal specially to the direct interest of children. | (1) Original compositions should much outnumber reproduction. Imagination must be stirred to produce live work. |
| (2) Personal letters.   | (2) See pages 27-30.  |

## B.

- |   |  |
|---|--|
| (1) Development of the idea of the paragraph by re-arranging an ill-arranged composition. | (1) A child's confused letter gives good matter to work on. See page 43. |
| (2) Continued use of capitals as in Class 3; capitals in headings.                        | (2) See page 44.   |
| (3) Punctuation: simple uses of comma and apostrophe.                                     | (3) See pages 45-46.   |
| (4) Common abbreviations: dates.  | (4) See page 46.   |

*Spelling.*

Power to spell the growing vocabulary the child needs to express himself in writing.

Class and individual lists to be kept; the class list to be sent on when the class passes to another teacher.



*Writing.*

- |  |  |
|--|--|
| (1) In books with pen and ink.   | (1) See pages 56-57.   |
| (2) Practice to secure facility.   | (2) See page 57.   |
| (3) Individual writing drill.  | (3) Children who have reached a standard satisfactory to the teacher may be given free choice work during writing lessons. |
| (4) Introduction to map-lettering.   |  |
| (5) Application of the power to write —e.g. (a) Producing fair copies of composition. (b) Manuscript literature books, poetry, proverbs, mottoes, prose. | (5) See page 57.   |
| (6) Exercises to fix the habits enumerated under "Written Composition B (2), (3), and (4)."  | (6) See pages 44-45.   |

5TH CLASS.

*Reading and Literature.*

NOTES.

- |   |   |
|---|---|
| (1) School Magazine and approved books.   | (1) About six books should be read during the year; one or two should be children's classics, one a book of poetry, and some informative matter of interest to children of this age should be included. |
| (2) Reading by teacher and individual pupils of poems and stories chosen from other sources than (1) above. | (2) See page 16.  |
| (3) Favourite poems, whole or in part, mottoes, proverbs, notable sayings to be memorized.                  | (3) See pages 21-26.  |
| (4) Encouragement of home reading.  | (4) Books from the home and the school and public libraries may be drawn on. Reading aloud in the family circle should be encouraged.   |
| (5) Dictionary practice: Finding given words.   | (5) See pages 26-27.  |

*Oral Expressions.*

A.

- |  |                                    |
|--|------------------------------------|
| (1) Conversation on matters of common knowledge and interest to the class.                           | (1) See page 43.                   |
| (2) Expansion orally by the pupil of blackboard notes made by the teacher in the course of a lesson. | (2) e.g., in Geography or History. |



(3) Giving the substance of reading and other lessons.

(4) Lecturettes.

(5) Dramatization [in connection with reading, history, geography, &c.]

(6) Demonstration by one class to another.

(3) Practice in connected expression running to several paragraphs should be secured from A (2), (3), and (4).

(4) See Cook's "The Play Way." The lecturettes should be by volunteers. See page 37.

(5) See page 36.

(6) See page 33.

#### B.

(1) Exercises to correct common errors in children's speech.

(2) Further daily phonic exercises to secure improved speech.

(1) Teacher to keep list of errors dealt with.

(2) Guard against habits of nasal speech, drawling, inaudible speech, and bad pitch of voice, at all times.

#### *Written Expression.*

##### A.

(1) Free composition on topics which appeal specially to the direct interest of children.

(2) Personal letters.

(1) Original compositions should greatly outnumber reproduction. Imagination must be stirred to produce live work. Both narration and description should be included in 5th class course.

(2) Correct forms should be a fairly fixed habit in this class.

#### *Written Expression.*

(3) Beginnings of correspondence with other schools

(4) Telling the story contained in a narrative poem.

(5) Composing a "Class Book."

(6) Expansion of the Teacher's black-board notes.

(3) See page 33.

(4) See page 34.

(5) See page 30.

##### B.

(1) Further development of paragraphing.

(2) Capitals and punctuation as in previous classes; use of comma, exclamation mark, apostrophe, useful abbreviations, quotation marks.

(1) See pages 43-44

(2) See pages 44-45.



*Spelling.*

Power to spell the growing vocabulary the child needs to express himself in writing in his widening fields of thought.

Class and individual lists to be kept; the class list to be sent on when the class passes to another teacher.

*Writing.*

- (1) In books with pen and ink.
- (2) Practice to secure speed.
- (3) Individual writing drill, if required.

(1) See pages 56-57.

(2) See page 57.

(3) See page 57.

- (4) Practice in map lettering.

(5) Application of the power to write—*e.g.* (a) producing fair copies of composition for "class book;" (b) producing fair copies of letters to other schools; (c) manuscript literature books, poetry, proverbs, mottoes, prose; (d) fair copy of arithmetic problem.

(5) See page 57.

Cultivate pride in this work.

- (6) Exercises to fix the habits enumerated under Written Composition B (2).

(6) See pages 44-45.

6TH CLASS.

*Reading and Literature.*

- (1) School Magazine and approved books.

(1) About six books should be read during the year; one or two classics; one a book of poetry, and a couple informative (historical, geographical, romance of science, &c.)

- (2) Reading by the teacher and gifted individual pupils of suitable literary units chosen from other sources than (1) above.

(2) See page 16.

- (3) Favourite poems, whole or in part, mottoes, proverbs, notable sayings, prose selections, to be memorized.

(3) Training in self-selection of matter for memorization to be stressed.

- (4) Encouragement of home reading.

(4) Books from the home and from the school and public libraries may be drawn on. Reading aloud in the family circle may be encouraged.

- (5) Selections from newspapers and magazines.

(5) See page 18.

- (6) Use of works of reference—dictionary, encyclopædia, Year Book, atlas, time table.

(6) Power to use an index should be developed.



*Oral Expression.*

## A.

(1) Free discussion of matters of common knowledge and interest to the class.

(2) Expansion orally by the pupils of blackboard notes made during the lesson by the teacher, or of notes made by the pupil in private study.

(3) Topical statements in connection with class subjects.

(4) Lecturettes.

(5) Current topics.

(6) Preparation by pupils of subjects in literature, history, geography, &c., to give practice in collecting and imparting information.

(7) Dramatization from reading, history, &c.

(8) Demonstration by one class to another.

(1) Connected expression often running to several paragraphs should be secured.

(2) This helps to secure confidence in connected statement.

(3) An advance on (2).

(4) See page 37.

(5) May be treated as in A (1), (2), (3), (4), or in other ways.

(6) An excellent means for applying McMurry's four points.

(7) See page 36.

(8) See page 33.

## B.

(1) Exercises to correct common errors in children's speech.

(2) Speech training through poetry, prose, and drama.

(1) Teacher to keep list of errors dealt with.

(2) Guard against nasal speech, drawling, inaudible speech, and bad pitch of voice, at all times.

*Written Expression.*

## A.

(1) Fuller development of the free composition specified in Class V. Practice in written expression of the ideas gained in ordinary class work.

(2) Making and expanding notes.

(3) Private letters correct in form.

(4) Simple business letters.

(5) Correspondence with other schools.

(6) Telling a story from different points of view.

(7) Telling a story involving a conversation.

(1) Original compositions should greatly outnumber reproductions.

(2) See McMurry's "How to Study."

(3) Make correctness of form habitual.

(4) Suit these to local needs.

(5) See page 33.

(6) See "The Mother Tongue" (Ginn & Company.)



(7) Composing a "class book."

(7) See page 30.

(8) Telegrams.

(8) Familiarise pupils with the forms.

(9) Verse-making.

(9) See pages 31-32.

B.

(1) Habit of paragraphing to be further developed and fixed.

(1) See pages 43-44

(2) Capitals and punctuation as previously taught: Quoting title (book, story, lecture).

(2) See pages 44-45.

(3) Exercises to test power to deal with language difficulties.

(3) See pages 38-42.

(4) Recasting sentences to give fresh forms while preserving the sense.

*Spelling.*

Power to spell the growing vocabulary the child needs to express himself in writing in his widening fields of thought. Class and individual lists to be kept.

*Writing.*

(1) Practice to secure speed while maintaining form.

(1) See page 57.

(2) Map-lettering.

(3) Applications as needed by the class and the individual.



### Reading in Classes I and II.

No insistence is placed on any particular reading method, series of reading books, or special grading of mechanical difficulties. Some of the main considerations are, however, pointed out:—

1. In the initial stages, the reading-matter should consist of easy phonetic words derived from home and school interests, and applied in short sentences.
2. Suitable objective material is necessary in order that some of the exercises, at least, may be of a motor character.
3. As soon as the growing power over the technique permits, children should read simple narrative—approximately in the beginning of the second year.
4. The method employed shall be planned:—
  - (a) To establish a definite connection between a child's spoken language and the new visible language he is attempting to learn.
  - (b) To awaken the desire to read.
  - (c) To give reliable means of self-help in the mastery of new word difficulties.
  - (d) To supplement and extend the class instruction by the provision of a large supply of suitable matter for individual exercises in free reading.
5. At the end of the two-years' course children should be able to read fluently and expressively any book of Reader I standard.
6. Within these limits children should have a reasonable command over spelling difficulties.

The labelling exercises already popular under the name of *Object and Words*, or *Pictures and Words*, offer excellent opportunities for the recognition and use of a large number of nouns. But a child's language, however imperfect, includes all parts of speech, and the use of simple idiom. The effectiveness of this exercise might be greatly enhanced by linking it with kindred activities in the use of verbs, adjectives and adverbial and prepositional phrases. Dramatic interpretation of various kinds, dialogue, and other forms of expression, naturally suggest themselves to teachers in this connection.

Self-help in the recognition of new words is generally the outcome of useful work in the discovery and application of the sounds and functions of the letters in word-making. Some definite teaching of phonetics is, therefore, necessary—the best method being that by which the children will acquire the greatest power in the shortest time and most simple way, and which will secure most readily the child's voluntary effort. Knowledge of phonetics being but a means to an end, the sounds and functions of the letters, in word-making and analysis, are not things *to learn about*, but *tools to use* in learning to read.

In the first year supplementary work in reading should be varied in character and mainly of a motor type. Large supplies of mounted letters for tracing, movable letters and words for sentence-making, objects and pictures with labels for naming, cardboard or paper slips showing single sentences for dramatic interpretation, word families, short lessons in script or print in large type on cards or leaflets, with the complementary exercises in writing, are some of the forms of practice which may be advantageously used.



In the second year, objective material may be discarded and a larger supply of story and picture books, children's magazines, leaflets, mounted short stories and fables, with some forms of work in word-making and its application, be substituted.

The more copious and varied the supplementary work, the more will the class instruction through the ordinary reader be enriched, and the more readily will the progress in reading be secured.

### Reading and Literature.

Literature teaching will consist of the reading of School Magazines and approved books, the reading and learning of choice poems, and the reading aloud by the teacher of such selected poems and prose passages as are suitable in range of ideas to the pupils' stage of development, though expressed in language which is too difficult for them to read. The main purpose of the reading is to widen the range of the pupils' ideas, and to lay the foundation of a taste for literature. The matter read should interest the pupil, so that he may learn to look to books as a source of profit and pleasure. Whilst the literature lesson will serve to give ideas to the pupils, the teacher should not permit the work to degenerate into the mere imparting of information, lest the higher aim be lost sight of. Nor should the ethical value of instruction in literature be forgotten.

Various avenues through which literature should come to the child are suggested in the class syllabus. The scope of the child's reading should not be unduly circumscribed, the school should act as a guide in the child's choice of reading matter, and the treatment should be of such a nature as will create not only a love of reading, but also a taste that will raise the child's standards of literary judgment. If a child or an adult read only for the excitement provided by the story, he will arrive at a state which, in time, unfits him for the appreciation of the ethical qualities displayed by the characters, the springs of human action revealed in the story, the beauty of diction, rhythmic smoothness, and so on.

The syllabus suggests that a number of literary readers should be used for each class, so that children's reading should not be unduly restricted. The class treatment of a single reader should not drag on over a whole quarter or longer. In using a literary reader, information, spelling, meanings of individual words are secondary; dictation and grammar inappropriate. Attention to form, style, aptness of diction, and all the other qualities of good literature are, in their proper places, all desirable; but the outstanding features of the treatment of literary reading should be the relation between motive and act, the emotional appeal to the reader, the sentiment to be created or strengthened; and the choice of a reader should provide that the motives of action shall be within the reader's comprehension, and the emotional appeal ethically desirable.

The objects of reading are manifold. We read for information, for entertainment, for inspiration, for relaxation, for fun; and all these are worthy objects. The child should grow to see that every story is a piece of life; that we are like the characters in the books; that we possess the same emotions; and though preaching and moralising should be entirely absent from the study of character, children yet may learn to know that the acts and speeches which gratify or displease them are impelled by emotions and powers which they themselves possess.



### Silent Reading.

As soon as the stage at which a child can read independently is reached, there should be periods of silent reading. These should increase in frequency and length, as children proceed from class to class. This treatment allows of more rapid progress through a book than is possible if it be all read orally, and it is a means through which may be tested (a) individual power of apprehension and of literary appreciation; (b) the capacity of pupils to express the content of the matter read; (c) the reading speed.

When a class is dealing with a work through silent reading, the portion to be read should have some approach to completeness, so that when the time for oral statement and class discussion arrives, there may be a more or less complete unit for treatment.

Throughout life, the chief object of our silent reading is to acquire ideas. In schools, therefore, the training in silent reading should always keep this important fact in view. Conversation and question on the matter read give little more than a mass indication of the class gain in ideas. There must often be individual testing.

Ballard, Thorndike, Starch, and others have evolved schemes for such individual testing of reading ability. Any teacher who will use one of these or devise one of his own will find that numerous mistakes are made by individual children in—

- (1) Ability to name the main topic in a short paragraph read.
- (2) Power to get the thought generally.
- (3) Power to reproduce the thought.
- (4) Estimating the relative importance of different points in the matter read.
- (5) The degree of relevance of contributions to the discussion.

One quality of silent reading which it is desirable to cultivate is speed. Too often a class is set to read without any reservation as to quantity or speed. It is said that in an ordinary class the ratio of the speed of the quickest reader to that of the slowest is as six to one. In order to improve speed, take a new lesson in the School Magazine, mark off a short portion, and give the class fifteen or twenty seconds to read it. Call time, have the books closed, and proceed to test the class in writing as to how much of the thought they have secured. Variations of this practice should provide for an increase in the thought difficulty of the portions treated.

An interesting sidelight on the reading power of the members of a class may be obtained in the following way: Issue a new reader to each member to be read at home, a record card being kept showing the dates of reading and the number of pages read at each sitting. A wide divergence in speed will be discovered, and, as a rule, the quick readers will be found to have the best knowledge of the matter read.

### Reading by the Teacher.

The school aims at causing a stream of good literature to flow to the pupils; but the current is limited by the child's power to read. In order to widen and deepen the stream it is desirable that a teacher should frequently read to his pupils works chosen from fields additional to those specified in the syllabus. He, thus bringing his matured judgment and elocutionary ability to their aid, is able to give his pupils the delight of hearing literature which would be quite beyond their powers of appreciation if it had been given them to read for themselves.



Although the main object of this practice is to widen the child's literary horizon, it will also unconsciously influence his own oral efforts, for he will have had experience of the pleasure that can be given by expressive oral reading.

At times a specially gifted child may be chosen to read something which he has studied previously and found to be good.

A wider audience should at times be provided. Choose a date some distance ahead; train the children to select those who are to be the readers; instead of a single class let the audience be a section of the school or even the whole school. Occasionally invite parents who care to attend; add any other form of school activity that seems at the time desirable; introduce any other social element which suggests itself, and the reading pupils will feel that they have taken a creditable part in a meeting that was worthy of their school, and the parents will have been brought into touch with the school in a desirable way.

### **Free Choice Work in English.**

Provision should be made for free-choice work, so that pupils will at times have the privilege of selecting their own occupation.

Freedom should be given for individual or group occupations. There may be some pupils who will elect individually to read a school reader or other book or magazine. Reading matter brought from home should be submitted to the teacher for approval. These periods will provide opportunities to children for the silent reading of books collected through any of the agencies enumerated in the syllabus as desirable avenues of supply.

In the free-choice periods other individuals or a group may select composition on a given or self-chosen subject. A section may elect to learn poetry or form a story-telling group.

Sometimes freedom of choice may be confined to one branch of English.

This is a favourable time for the introduction of mutual help. Where sympathy and confidence exist, boys often learn more readily from each other than from a teacher. When a boy who is weak in any subject is allowed to choose a friend as trainer, his progress in that subject is often very rapid.

When individual children have finished their set work, provision should be made for such children to go on with free work preferably in the same subject.

In free work no child should interfere with the liberty or comfort of any one in the room. The teacher should not be a mere onlooker, nor should she engage in other work during a free period. She should be among the children ready to answer questions, to give suggestions to individuals, and to help where help is needed.

### **Encouragement of Home Reading.**

It is desirable that the school should influence the child's home-reading. For this purpose children may be allowed to take home any of the readers in which they have become interested in school. Books so lent should be returned at the specified time.

It is helpful, too, if children are led to talk about the books they are reading at home, and to read or tell to the class something that has proved attractive.



Children frequently read inferior matter because books fall haphazard into their hands. A teacher, by suggesting books that he knows to be both worthy and attractive, can save a child from much waste of time and ensure that his literary standards shall improve with his progress from class to class.

A secondary result secured through children's taking their readers home is the introduction of good literature to other inmates of the home.

### Newspapers and Magazines.

Although there is much matter in newspapers of which children should have no knowledge, there frequently appear in both newspapers and magazines articles on subjects in which pupils are interested.

Every teacher who with his pupils followed in the newspapers the course of the late war knows what fine maps were produced in class throughout the period, because of the intense interest displayed. If pupils have a motive for the acquisition of knowledge, equally fine results may be achieved in dealing with other sections of the newspaper. The commercial columns provide daily interesting matter for geography lessons; the cables furnish amongst other things, matter for civics teaching; certain papers produce their special articles on outdoor life, providing useful information in sympathy with nature study and morals; and, occasionally, in the daily and weekly papers, and more frequently in magazines, especially those written for children, there appear articles that would provide fine specimens for the teacher or a child who reads well to read to the class.

### A Suggestive Course of Prose Literature.

One pronounced feature of the present Syllabus is, the suggestion of a widened scope of reading. The school should not only strive to create literary taste, but should provide the food from which the taste is evolved. While the reading courses in schools will not be identical, there are many books, classics of the language, which every child passing through a Primary School should read. The various lists that follow will aid teachers in making their selection.

I. *Children's Classics*.—It is not easy to allocate these books to specific classes, as schools and individuals differ in reading ability, but a list in the following order is suggested, allowing an overlap of one or even two classes:—

#### 3RD.

Nursery Rhymes and Stories.  
Fairy Tales.  
Aesop's Fables.  
Dick Whittington.

#### 4TH.

Selections from Grimm.  
Selections from Hans Anderson.  
Alice in Wonderland.  
Tales of King Arthur.  
Heroes (Kingsley).  
Stories from the Faerie Queene.  
King of the Golden River.  
Story of Robin Hood.  
Uncle Remus Stories.



5TH.

Just So Stories.  
Jungle Book (Selections).  
Puck of Pook's Hill.  
Tanglewood Tales.  
Wonder Book.  
Pilgrim's Progress.  
Robinson Crusoe.  
Peter Pan.  
Blue Bird.

6TH.

Book of Golden Deeds.  
Uncle Tom's Cabin.  
Don Quixote.  
Gulliver's Travels.  
Arabian Nights.  
Christmas Carol.  
Lamb's Tales.

To these should be added Australian books such as the following:—

Dot and the Kangaroo.  
The Little Black Princess.  
The Youngsters of Murray Home.  
We of the Never Never.  
The Dreadnought of the Darling.  
Bushland Stories.  
Stories of Australian Exploration.

This list does not include the poetry which should form a considerable portion of the reading-matter of every class; neither does it contain any of the numerous books that have from time to time been used for super-primary work. Many of these, however, are quite suitable, and may be profitably included in a 6th Class literature course if no longer prescribed for super-primary work.

II. *Specimen Lists of Class Readers.*—Experience has shown that the following sets of Readers are suitable for the classes indicated:—

**Suitable Supplementary Readers.**

3RD CLASS.

Name.			Publisher.
1. Story Readers, No. 1	..	..	Collins & Co., London.
2. " " No. 2	..	..	" " "
3. Dick Whittington, and Cinderella	..	..	" " "
4. Sinbad the Sailor	..	..	" " "
5. Robin Hood	..	..	Jack & Co.
6. The Anderson Reader	..	..	Collins & Co.
7. The Water Babies	..	..	Jack & Co.
8. Uncle Tom's Cabin	..	..	" "
9. Many Lands and their Children	..	..	McDougall's Educational Co., London.
10. Junior Wide World Reader II	..	..	Collins & Co.
11. The World and Its People. (Little Folks of Other Lands)	..	..	Nelson & Co., London.
12. Highroads of Geography Book I	..	..	" " "
13. Jack Readers II	..	..	Jack & Co.
14. Selections from Australian Verse	..	..	Angus and Robertson, Sydney.



## 4TH CLASS.

1. King Arthur's Knights .. .. .	Jack Series.
2. Tales from Chaucer .. .. .	" "
3. Stories from Shakespeare .. .. .	" "
4. Water Babies .. .. .	" "
5. Robin Hood .. .. .	" "
6. Faerie Queene.. .. .	" "
7. Uncle Tom's Cabin .. .. .	" "
8. Odyssey.. .. .	" "
9. Legends from Greece and Rome .. .. .	D. C. Heath & Co.
10. Wide World Reader. (Australasia.) .. .. .	Collins.
11. Many Lands and their Children .. .. .	McDougal's Ed., Co.
12. Selections from Australian Verse .. .. .	Angus & Robertson.
13. Peter Pan .. .. .	G. Bell & Co.

## 5TH CLASS.

1. Tales from Shakespeare (Lamb) .. .. .	Ward Lock.
2. Tales from Tennyson (Richmond) .. .. .	Collins.
3. Legends of Greece and Rome (G. H. Kupfer) .. .. .	Heath & Co.
4. King Arthur's Knight (W. W. Catler) .. .. .	Harrap & Co.
5. Stories from Ancient Greece (Prof. Church) .. .. .	Cassell & Co.
6. Stories from Wagner .. .. .	Harrap.
7. Hiawatha .. .. .	G. Rutledge and Son.
8. Evangeline .. .. .	" "
9. Enoch Arden .. .. .	" "
10. Joan of Arc .. .. .	Jack.
11. Sir Francis Drake .. .. .	" "
12. Story of Livingstone.. .. .	" "
13. Coral Island .. .. .	Collins.
14. Stories of Parkhurst School, V .. .. .	Nation Story Reader.
15. Bushland Stories .. .. .	Angus & Robertson.
16. Cricket on the Hearth .. .. .	" "
17. Girls Together .. .. .	" "
18. Little Women .. .. .	" "
19. Wide World Reader (British Empire).. .. .	Collins.
20. " " " (Australasia) .. .. .	" "
21. Peeps at Many Lands (Canada) .. .. .	A. and C. Black.
22. Story of the World, Book III (Synge) .. .. .	Wm. Blackwood.
23. Stories of Australian Explorations (Long) .. .. .	Whitcombe and Tombs.

## 6TH CLASS.

1. Treasure Island .. .. .	Cassell & Co.
2. Coral Island .. .. .	Graphic Supp. Readers.
3. The Old Curiosity Shop .. .. .	Nelson and Sons.
4. Children's Pickwick .. .. .	Jack.
5. Christmas Carol .. .. .	Nelson and Sons.
6. Ivanhoe.. .. .	Collins.
7. Stories from Ancient Greece .. .. .	Cassell & Co.
8. Midsummer Night's Dream (Prose) .. .. .	J. M. Dent & Co.
9. Lamb's Tales from Shakespeare .. .. .	Ward Lock.
10. Stories from Wagner.. .. .	Harrap.



11. Girls Together .. .. .	Angus & Robertson.
12. Little Women .. .. .	" "
13. Lay of the Last Minstrel .. .. .	Collins.
14. As You Like It .. .. .	Blackie and Sons.
15. Wide World Readers (British Empire)	} Collins.
16. " " " (Foreign Countries)	
17. " " " (Australasia) ..	
18. Awakening of Europe, Part 3 (Synge)	} Wm. Blackwood.
19. Struggle for Sea Power, Part 4 (Synge)	
20. Growth of British Empire, Part 5 (Synge)	
21. Peeps at Many Lands (Series) .. ..	A. and C. Black.
22. Over Land and Seas .. .. .	Collins.

### The Learning of Poetry.

Besides the complete poems memorised, pupils should learn short selections that are complete in themselves, single stanzas, and also detached couplets or single lines which may be worth learning on account of their literary beauty or their applicability to something else learned. In selecting poetry for each class, its suitability, both in the range of ideas expressed and the language used, should be kept in view, so that it may be appreciated. In the earliest stages pupils are attracted by rhythmical lines before they fully understand them.

A good part of the matter read aloud by the teacher to the class will consist of poems which he considers they are likely to appreciate. Some will recur, and he will notice those which prove popular with the children. These popular poems will give a large number from which to select for memorisation. They will be discussed by the class. Good oral readers will take a delight in reading them aloud to the class. Many of the children after a time will practically know them by heart without having made any definite effort to memorise them. The class may then safely be asked to complete the work of memorising. The children are already used to the proper phrasing of the poem, and so will not murder it by bad phrasing, as many of them inevitably will if the poem is given to memorise without proper practice in phrasing it. Experiment has shown that memorisation is effected more economically where the poem is treated as a whole instead of being treated piece-meal, and the method of treatment suggested above secures this.

Poems in the School Magazine, if treated in a similar way, will often be found to supply suitable material for memorisation. Poetry should receive more time in the oral reading lesson than prose does. Much prose will yield its full worth if read silently; poetry never does so, even to the trained adult reader. Poetry, like music, owes much of its effect to the ear, and expressive oral reading is essential to reveal this quality. The poems in the Magazine, therefore, should be taken early in the month.

It is expected that one of the books read in each class shall be a book of poems. This book will give additional material for memorisation.

If the right attitude to poetry is secured among the children there will be, in addition to the class work, a good deal of individual committing to memory of pieces that make an individual appeal.

A few specimens of fine prose should also be memorised.

The child should keep a list of pieces he learns (no entry to be made till the teacher is satisfied that memorisation has been completed). The teacher should keep a list of poems, &c., learned by the class, and hand it to the new teacher when the class passes on to one.



A list from which poems may be selected for memorization by the pupils.

## CLASS I.

			Nursery Rhymes.
			Nonsense Jingles (as in Pinafore Palace).
Stevenson	...	...	Bird with the Yellow Bill.
			My Bed is my Boat.
			Bed in Summer.
			Bed in Winter.
			The Rain.
			At the Seaside.
			The Sun.
			Morning Comes.
			Of Speckled Eggs.
			I Woke before the Morning.
			The Friendly Cow.
			The Land of Counterpane.
			A Good Play.
			The Swing.
			Windy Nights.
			I Saw You Toss the Kites on High.
			The Moon.
			Singing.
			The Flowers.
			Marching Song.
			Travels.
			The Cherry Tree.
Rossetti	...	...	The Wind.
			Minnie and Mattie.
			The Ferryman.
			The Bee.
			The Rose.
			Kindness.
Eugene Field	...	...	Japanese Lullaby.
			The Rock-a-by Lady.
			Little Boy Blue.
			Good Children Street.
			Lady Button Eyes.
			The Ride to Bumpville.
			Love Song of Childhood.
			Lullaby Land.
			The Fly Away Horse.
			Child and Mother.
			The Night Wind.
Thompson	...	...	Mr. Nobody.
			Underneath the Sea.
			Lady Bird.
			The Rabbits.
			The Little Tin Soldiers.
			Sparkle, Sparkle Little River.
Coleridge	...	..	The Trees.
			The Months.



Coleridge	...	...	Do You Ask What the Birds Say. A Child's Wish.
Weatherley	...	...	My Baby. The Cat's Tea Party. The Gray Dove's Answer.
Kingsley	...	...	The Lost Doll. River Song. Oh! I Wish I Were a Tiny Brown Bird.
Herrick	...	...	Violets. Queen Mab.
Shakespeare	...	...	Where the Bee Sucks. Full Fathom Five. Come unto these Yellow Sands. Under the Greenwood Tree.
Tennyson	...	...	Birdie and Baby. Minnie and Winnie The Snowdrop. Sweet and Low. The Poet's Song. The Merman (selections). The Owl. The Sea Fairies Song.
Blake	...	...	The Laughing Song. Spring. The Little Boy Lost. The Little Boy Found. Infant Joy. The Sea. The Shepherd.
Setoun	...	...	Baby's Big World. What the Leaves Say. How the Flowers Grow. Spring Time. A Mystery. City Sparrows. Jack Frost.
Keats	...	...	The Daisy Song. My Dove.
Lord Houghton	...	...	Lady Moon. A Fair Little Girl.
G. Macdonald	..	...	The Baby. The Child and the Moon. Up and Down.
Jean Inglelow	...	...	Seven Times Seven.
Laurence Alma Tadema	...	...	Snowdrops.
Emerson	..	...	The Mountain and the Squirrel.
Kendall	...	...	Extracts from the Months. Extracts from the Bell Birds.
Gordon	...	...	Selections from "A Dedication." Selections from "Ye Weary Wayfarer."
Ethel Turner	...	...	Gum Trees.
Richard le Gallienne	...	...	Morning. Evening Song.



## CLASS II.

The Arab and His Horse	...	...	Taylor.
The Boy's Song	...	...	James Hogg.
The Better Land	...	...	Mrs. Hemans.
The Brook	...	...	Tennyson.
The Bow that Bridges Heaven	...	...	Christina Rossetti.
The Brown Thrush	...	...	Lucy Larcom.
Eurydice	...	...	Bourdillon.
The Fountain	...	...	Lowell.
Farewell to the Farm	...	...	R. L. Stevenson.
How the Leaves Came Down	...	...	Coleridge.
The Humming Top	...	...	Eugene Field.
Little White Lily	...	...	G. Macdonald.
The Lamplighter	...	...	R. L. Stevenson.
The Lamb	...	...	Blake.
My Shadow	...	...	R. L. Stevenson.
The New Moon	...	...	E. L. C. Follen.
Parts of Hiawatha	...	...	Longfellow.
The Piper	...	...	Blake.
Robin Red Breast	...	...	Allingham.
The Sunbeams	...	...	Emilie Poulsson.
Two Little Kittens	...	...	Jane Taylor.
The Wind in a Frolic	...	...	Howitt.
The Wonderful World	...	...	W. B. Rands.

Also those named in the list for Class I.

## CLASS III.

Answer to Child's Question	...	...	Coleridge.
Foreign Lands	...	...	R. L. Stevenson.
John Gilpin	...	...	W. Cowper.
Good Night and Good Morning	...	...	Lord Houghton.
The Lost Doll	...	...	C. Kingsley.
May	...	...	Wordsworth.
Nature's Teaching	...	...	Longfellow.
The Pied Piper	...	...	R. Browning.
The Pedlar's Caravan	...	...	W. B. Rands.
Spring	...	...	Shakespeare.
Song from Pippa Passes	...	...	Browning.
A Song of Willow	...	...	Shakespeare.
To the Celandine	...	...	Wordsworth.
In a Garden	...	...	Swinbourne.
To a Butterfly	...	...	Wordsworth.
The Voice of the Grass	...	...	Boyle.
Where go the Boats	...	...	R. L. Stevenson.
Wishing	...	...	Allingham.
The Wind and the Moon	...	...	G. Macdonald.
Wynken, Blynken, and Nod	...	...	E. Field.

And certain poems that appear in The School Magazine from time to time.



CLASS IV.

An Arrow	...	...	...	...	Scott.
Break, Break, Break	...	...	...	...	Tennyson.
The Brooklet	...	...	...	...	Longfellow.
A Bird's Nest...	...	...	...	...	Hurdis.
To the Cuckoo...	...	...	...	...	Logan.
A Farewell	...	...	...	...	C. Kingsley.
The Cuckoo	...	...	...	...	Wordsworth.
The Garden that I Love	...	...	...	...	Tennyson.
The Heritage	...	...	...	...	Lowell.
Hohenlinden	...	...	...	...	Campbell.
Home, Sweet Home	...	...	...	...	Payne.
The Last Rose of Summer	...	...	...	...	Moore.
Lullaby	...	...	...	...	Tennyson.
The Minstrel Boy	...	...	...	...	Moore.
My Native Land	...	...	...	...	Scott.
Our Common Birds	...	...	...	...	Emerson.
He Prayeth Best	...	...	...	...	Coleridge.
The Rainy Day	...	...	...	...	Longfellow.
Requiem	...	...	...	...	R. L. Stevenson.
Stars	...	...	...	...	Barry Cornwall.
To-day	...	...	...	...	Carlyle.
Harry Dale	...	...	...	...	Henry Lawson.
The Wattle	...	...	...	...	Veronica Mason.

And certain poems as appear in The School Magazine from time to time.

CLASS V.

The Arrow and the Song	..	...	...	Longfellow.
To Daffodils	...	...	...	Herrick.
The Daffodils	...	...	...	Wordsworth.
The Deathbed	...	...	...	Hood.
Fairy Songs from	...	...	...	Shakespeare.
How Sleep the Brave	...	...	...	Collins.
The Last of his Tribe	...	...	...	Kendall.
Lucy	...	...	...	Wordsworth.
The Meeting of the Waters	...	...	...	Moore.
My Garden	...	...	...	Brown.
Short Quotations from	...	...	...	Shakespeare.
Solitude	...	...	...	Wilcox.
Soldier Rest	...	...	...	Scott.
The Sea	...	...	...	Barry Cornwall.
The Soldier's Dream	...	...	...	Campbell.
Three Fishers	...	...	...	Kingsley.
Who is My Neighbour?	...	...	...	Lowell.
Wattle...	...	...	...	Mollie A. McNutt.
The Wayside Well	...	...	...	Chas. Mackay.
A Wet Sheet and a Flowing Sea	...	...	...	Cunningham.
Young and Old	...	...	...	Kingsley.

And certain poems that appear in The School Magazine from time to time



## CLASS VI.

About Ben Adhem ...	...	Leigh Hunt.
Apostrophe to Night ...	...	Young.
To Althea from Prison ...	...	Lovelace.
A Beauteous Evening ...	...	Wordsworth.
To Blossoms ...	...	Herrick.
Clancy of the Overflow ...	...	A. B. Paterson.
Farewell ...	...	Byron.
A Farewell ...	...	Kingsley.
The Fatherland ...	...	Lowell.
Lord of Himself ...	...	Wotton.
Men of England ...	...	Campbell.
Ode to a Nightingale...	...	Keats.
On First Looking into Chapman's Homer ...	...	Keats.
The Noble Nature ...	...	Ben Jonson.
Patriots ...	...	Cowper.
Rose Aylmer ...	...	Landor.
Rule Britannia ...	...	Thomson.
The Sand Piper ...	...	Thaxter.
Short Quotations from Plays by Say Not the Struggle...	...	Shakespeare.
Sonnet on His Blindness ...	...	Clough.
The Sick Stockrider ...	...	Milton.
The Skylark ...	...	A. L. Gordon.
" " ...	...	Shelley.
" " ...	...	Hogg.
" " ...	...	Wordsworth.
The Splendour Falls ...	...	Tennyson.
The Universal Prayer ...	...	Pope.
Vitai Lampada ...	...	Henry Newbolt.
Virtue... ...	...	Geo. Herbert.
The Wind ...	...	A. A. Procter.
Yussouf ...	...	Lowell.

And certain poems that appear in The School Magazine from time to time.

## USE OF BOOKS OF REFERENCE.

To know how to obtain information when one needs it is an important part of one's equipment for life, and an introduction to the art should be obtained in the primary school.

The main principle of arrangement in works of reference is the placing of the topics in alphabetic order.

The first step to using books of reference is therefore a knowledge of the order of letters in the alphabet. When pupils are sure of the alphabetic order of letters they may be asked to place words beginning with different letters in alphabetical order.

The next step is to place words beginning with the same letter and differing in the second letter in alphabetic order. Three or four words are sufficient to begin with. To increase the teaching value of the exercises the words may be taken from the class spelling list, and the placing of them in alphabetic order may be made a writing lesson.



Pupils may next be practised in finding given words in their dictionaries. When they can readily do this they can find a topic in an index or in an encyclopædia.

An index habit should be set up in children. They should know the difference between a table of contents and an index and should have practice in determining what subject to look for in the index. The Australian Year Book gives excellent opportunities for this sort of practice.

There should be definite practice in getting pronunciation from the dictionary. The type words found at the foot of each page must be explained. This may profitably be linked up with the work done in phonics.

There should be corresponding training in the use of the Atlas.

If, as is hoped, much emphasis is laid on active learning by the pupil, the use of reference books will be a daily necessity and skill will rapidly grow. In no case, however, should these exercises be made an end in themselves.

### SPEECH TRAINING.

It is important that teachers should expect good speech from their classes and should devote definite time to secure this.

Systematic training must be given by teachers so that the children may acquire the habit of conveying thought by speech in the best possible way. Children must be led to realise something of the sounds of their native tongue, particularly those which they say indistinctly or incorrectly. They must also discover that to give complete expression to their thought, intonation, speed, stress, distinctness, and phrasing must be adequately practised.

It is necessary at the outset to direct the attention of the children to the sounds that occur in their language.

These are :—

#### *Consonants,*

p	in	put
b	„	big
t	„	tin
d	„	dine
k	„	cat, king
g	„	go
m	„	my
n	„	now
ng	„	wrong
l	„	look
wh	„	where
w	„	was
f	„	fun
v	„	vow
s	„	sit
z	„	zoo
sh	„	shut
s	„	measure
th	„	thin
th	„	that
r	„	red
y	„	you
h	„	host, hit, heed, hat, hard, hot, horse, hood, hoop, hut, hurt.



*Vowels.*

The vowels in eat

it  
led  
cat  
ask  
hot  
law  
fun  
pull  
pool  
water (2nd syllable)  
earn

*Diphthongs.*

In day

try  
go  
cow  
boy  
near  
care  
tour

Children are not conscious of these sounds (as they seldom occur in isolation in the language), so teachers must first direct their attention to them and arouse their interest in them. This can be done in the earliest stages by means of games. Teachers will readily find ways of illustrating most of the different sounds given above. Children will attempt to reproduce with their own organs the sounds made around them by animals, trains, wind, &c. They may be set to play at guessing and listening games. In some such way the children become conscious of individual sounds.

At a later stage, in Second Class perhaps, the attention of the children should be directed to the organs which help to form the various sounds which they have grown accustomed to produce and recognise in isolation. Each child may provide himself with a mirror, in order to examine his mouth while saying a particular sound. Some idea of the way in which sounds are formed may be indicated by appropriate gesture.

When the children are capable of isolating speech sounds, and are conscious of the organs which help to make the sound, the work in the higher classes will not be so difficult. From the lowest class teachers should aim at clear utterance in singing, in the saying of poetry, in oral reading, and in general speech. But from the Third Class this is to be promoted by means of definite speech drill, which, preceded by simple breathing exercises, should occur daily. This drill consists of a series of carefully-graded lessons dealing with the badly-said sounds in turn. In this way, at any given time, though the speech as a whole leaves much to be desired, some defects will have been definitely dealt with and overcome.



Any of the abovementioned sounds must be thus dealt with if it is carelessly uttered. Experience has shown that the following almost invariably need attention. Either they are frequently pronounced incorrectly, as is the case with the first eleven, or they are omitted altogether, as with 12 and 13:—

1. The diphthong in *go*.
2. The diphthong in *day*.
3. The diphthong in *try*.
4. The vowel in *cat*.
5. The vowel in *eat*.
6. The vowel in *it*.
7. The vowel in *pool*.
8. The diphthong in *cow*.
9. The vowel and consonant in the second syllable of *going*.
10. *Wh* in *what*.
11. Lipping consonants—*th* for *s*, *w* for *r*, *f* for *th*.
12. Final consonants.
13. Initial *h*.

These and any other mispronounced sounds should be taken one at a time and practised daily in the drill lesson, until the children are thoroughly familiar with the correct form.

Teachers should also be prepared to hear and correct the general mispronunciations in speech which affect, not certain words, but the speech as a whole.

One of the most objectionable is *nasal speech*. The attention of those who have this defect must be directed to it until a cure is effected.

The *drawling* of the whole speech must also be noted and corrected.

On the other hand, some pupils speak too quickly, and an unintelligible *gabbling* is the result.

Some children speak on a *high* and others on a *low pitch*. Neither of these, for different reasons, is desirable. A medium pitch best serves the purpose of speech.

*Inaudible speech* is common among children. They must be taught to articulate their words clearly and distinctly, so that those to whom they are speaking may easily hear what is being said. To stimulate audible speech, the teacher should move away from, rather than towards, a child who is speaking inaudibly.

These general faults should not be treated generally, but definitely one at a time. Criticism of mistakes which the children have not yet learnt to realise as mistakes is valueless.

The exercises in special sounds and the attention given to the faults of nasal speech, drawling, gabbling, exaggerated pitch, and inaudible speech, should be continued in every class in the school.

The next stage in training children adequately and pleasantly to express thought by means of speech deals especially with accentuation, intonation, and phrasing. These factors of speech will be remembered and referred to



by the teacher even while the more mechanical difficulties are receiving more definite care. But at this later period lessons should be given on them, and the children shown how correct use of them will enhance the effectiveness of narration, oral reading, recitation, or everyday speech. The correct stressing of words and phrases (accentuation) is necessary to bring out a desired meaning. The same may be said of the rising and falling of the voice (intonation) and of phrasing.

There are no fixed rules for accentuation, intonation, and phrasing. They always depend on the particular thought in the mind of the speaker at the time of the utterance. But, none the less, they are important factors in oral work, and are to be discussed independently with the class and their value demonstrated to it.

Teachers should also help, as far as possible, those who stammer. If stammering is the result of a physical defect, the remedy will not lie in their hands, but in many cases individual attention and patience in an early stage may eradicate the defect. It is often due to nervousness.

Pupils who have worked through some such definite scheme as is suggested here cannot have failed to realise and acquire some of the power which lies in trained speech. It will show its effect in singing, recitation, oral reading, narrative, and everyday speech.

### Composing a Class "Book."

Suppose a class is going to write the story of "A Terrible Struggle"—an original imaginative story. The teacher first tries to stir the imagination of his pupils—they are to tell the story of a struggle, a terrible struggle. Can they see the struggle taking place? Let them close their eyes and look at it. Who are struggling? Where? Why? Is it an even struggle? Does one get the better of the other? and so on. The children should not answer aloud, but only to themselves. As soon as imagination is fired the children are set going on their story. They write freely, forgetful of the mere mechanics of composition (though much of the mechanics, having been made habitual, takes care of itself). When the story has been completed each "proofs" his work, perhaps with the assistance of his classmates, until it is as correct as he can make it. Sometimes further proofing may be done at home through an interested elder brother, or sister, or a parent. Then it is marked by the teacher and finally corrected by the writer.

Now it is suggested that a book of stories of "Terrible Struggles" be made of the stories written by the class. This will necessitate fair copies of each story on uniform paper, and the making of these fair copies provides deeply motivated writing lessons, each boy being anxious to have his story as well written as possible. Then the whole are put together, and possibly bound in a becoming cover designed in the Art Work period and made in the Manual Training period. Each pupil is allowed to take the book home, and the comparison of the pupil's work with that of his classmates proves a strong stimulus to future work in written expression.

A book on a topic such as "Wheat Farming" may be made. It would consist of the best compositions on the series of sub-topics dealing with different aspects of wheat farming. Illustrations may be made by the artist of the class, or may be cut from illustrated papers, or supplied by the boy with a camera.



## Verse-Making.

Poetry forms such a large part of school literature that, even if there has been no definite teaching on the subject, there will have come to children, long before they have reached Sixth Class, some knowledge of poetic form. In the upper classes, therefore, pupils may be given a chance to try their hands at verse-making.

The attempt might be introduced in some such way as the following:—

Play a well-marked march tune—the feet of the children will soon be tapping.

Sing, or even say,

Here we float in our golden boat,  
Far away, far away,

accompanying the singing with even a slight swinging movement—the bodies of the children will soon be swaying in sympathy.

Ask a child to step across the room while repeating,

The way was long, the wind was cold,  
The minstrel was infirm and old;

and he will quite naturally fall into step with the rhythm of the words.

Write on the blackboard,

I sprang to the stirrup and Joris and he.

Read it aloud with well-marked emphasis. Ask the class to read it and tap the accents thus:—

tap/tap-tap-tap/tap-tap-tap/tap-tap-tap/tap.

Repeat this with other lines, and a country child, at least, will soon recognise the patter of a horse's galloping feet.

In all this the children will have demonstrated that they know a good deal about rhythm whether the term has been used or not.

Next take rhyme.

Write on the blackboard,

A wind came up out of the sea,  
And said, "O mists, make room for me."  
It said unto the forest, "Shout!  
Hang all your leafy banners out!"

Very little talk will be necessary to bring out the similarity of sound in the end syllables; in all their years of learning poetry this has grown into their minds.

Now for the trial.

Perhaps the first attempts should be made with rhyming couplets and be of such a nature as will introduce some fun into the exercise. The old alphabet rhymes suggest themselves as suitable. Suppose the teacher starts off with,

A was an apple with cheeks rosy red;

the children may then set out to find a "B" line ending in a syllable rhyming with "red." There will be many misfits, but, with a hint here and there, it will possibly be discovered that

B was a bullock with horns on his head,

or

B was a boy who was too fond of bed,

or

B was a billy-goat not too well fed.



Having been given a start, the children will finish the alphabet themselves for the fun of the thing.

Next take a nursery rhyme, say "Jack and Jill." Write this on the board as a pattern, and suggest writing a second verse from the following material written in prose:—

"Jack and Jill came down the hill. Their hearts were very sad. Jack will go to bed in order to rest his head, and they will both feel better to-morrow."

Jack and Jill  
Came down the hill

is easy for the first two lines. With "to-morrow" in view, "sad" passes through "sorry" to "sorrow," and with a little fitting the third line reads:

Their hearts were full of sorrow.

"Bed" and "head" suggest

Jack in bed  
Will rest his head,

and the last line runs easily into

They'll both be well to-morrow.

Thus, if only through imitation of some well-known poem of strongly-marked rhythm, children will be found able to construct similar verse, and will find delight in discovering a fresh power and a new form of expression.

### Motivation in Composition.

In composition the presupposition of modern treatment is that the child shall have something that he desires to tell. For him the content is the thing, however much the teacher may have to consider form. Provide a strong motive in the pupil and a live composition is sure to result. If we want the boy to write an effective letter, the first essential is a situation calling for a letter to deal with it; a situation definitely realised by the boy and felt by him to be worth dealing with. If the boy is to invent an original story there must be definite stimulus to his imagination; if this be set simmering an interesting story has some chance of resulting. The art of stirring the imagination of a class preparatory to the writing of a composition is one that every teacher needs to cultivate.

### Self-expression.

Great variety should mark the expressive work, especially in the lower classes. Oral expression, while the most valuable, should not be used exclusively. Ideas are liberated much more freely and with much greater vividness when drawing, modelling in sand or plasticine, making, paper-cutting, and dramatization are freely resorted to.

The expressive drawing of the child from five to seven years of age may not convey much to the adult, but the enjoyment with which the boy interprets it in speech shows how much it has done to clarify and vivify his ideas. The teacher will not be troubled by wandering attention while a class, gathered round the sand-tray, works out the story of "Little Red Riding Hood." The picture, built up as community work by paper-cutting, supplemented, perhaps, by a little chalk, is an enduring source of satisfaction to little children. The dramatization of stories now so often used is a revelation to the teacher who sees it for the first time. All artificiality should be



avoided, and the child's self-confidence preserved. Neither gesture, action, nor speech should be dictated. They should grow out of the child's appreciation of the thing to be expressed.

All this should reinforce the child's power of oral expression by clarifying his ideas and shaping them in an atmosphere of appropriate emotion. The story told by the teacher, after being reproduced by the children through one or more of these channels of expression, should culminate in what might be called a classic form. From a story which has entered into the possession of a class incorrect language forms should have been eliminated.

### Stimulus to Self-expression.

The stimulus that an audience provides should always be remembered in connection with training in oral expression. A class which has made an exciting investigation into the ways of an insect, which has collected a number of illustrative specimens, which has made a number of drawings and diagrams to clear up details, which has memorised interesting verses bearing on the subject, will prepare with a seriousness that would put adults to shame for a demonstration to another class which knows nothing about the subject. If the class is conveying such information in writing to the children of another locality, there will be the strongest stimulus to produce clear and interesting composition, to make drawings that please the eye and tell their tale, to give the account in handwriting that will reflect credit on the writers' school.

In a school a class of girls may be reading the chapter of "Little Women" in which Jo dilates on theatricals with numerous references to "Macbeth," another may be reading "Macbeth" in "Lamb's Tales from Shakespeare." Teachers who realise the value of an audience in stimulating expression will not fail to utilise such a situation.

A similar idea is at the back of the Syllabus suggestion in regard to inter-school correspondence. Children in a Western Plains school writing to children in a seaside school for information about surfing desire to make a good impression on their correspondents by their letter. It must, therefore, be good in form, it must be well expressed, well spelt, well written. When it is read in the seaside school it imparts keenness among the pupils into the composition on surfing. When each pupil has written his account, the class listens critically to it as it is read; they are glad to recognise a sentence that conveys a surfing idea graphically; proudly the champion composer of the class sets to work to embody in one composition each and every good thing that has been produced by any member of the class; keenly his class-mates watch to see that he omits nothing that is good; proudly the best writer sets about making the fair copy to post out west!

Such inter-school correspondence might ask for and give information—

- (a) About coal-mining, wheat-growing, sheep-raising, dairying; maize, banana, or sugar-cane growing; shipping, steel-works, factories, surf-bathing, flourmilling, timber-getting, and so on.
- (b) About traces of explorers or other local matters of general interest.
- (c) About climatic conditions.

In letter-writing, if there is a real situation demanding a letter to meet it, there will be much better quality of work done, for there will be definite conditions to meet which will furnish criteria for judging of the appropriateness or inappropriateness of each part of the letter. The children, for



example, wish to celebrate Empire Day with a bonfire; a near-by farmer is cutting scrub. The situation calls for a letter; the class writes it; each reads his letter to the class. While all fulfil the main purpose of the letter, to ask the farmer for his scrub, some of the letters are more clearly or more politely phrased, and the class can appreciate this because the children understand the whole situation.

A very valuable composition exercise is furnished by setting a 6th class, say, to tell from a new point of view a story already known. Here the characters and incidents are given, but the constructive imagination has to be put to vigorous use to reconstruct the story from a new point of view. A story may, for instance, be retold from the point of view of one of the characters. The villain, *e.g.*, may tell the story so as to make out the best possible case for himself consistent with the facts as set out in the original; or the defeated one may tell the story originally told from the point of view of the victor; a story told from the point of view of the parent may be retold from that of the child or *vice versa*.

A simple form of this exercise is furnished by telling in the first person a story already told in the third. For example, the story of "The Lion and the Mouse" may be retold (1) as by the Lion, (2) as by the Mouse.

Another valuable exercise is to set a child to tell in his own prose the story told in a familiar narrative poem, *e.g.*, "Lochinvar," "A Night with a Wolf," "Burial of Sir John Moore," and so on.

Another form is the dramatizing of an episode from a story. The practice gained in lower classes in oral dramatization will prepare for such work. To begin with, an episode in which the writer has given a considerable amount of conversation may be taken, exercises involving more invention of conversation following later. In all cases the finale should be the acting of the little play before the writer's class-mates, and if thought interesting enough, later before some other class in the school.

It might be practicable to establish a manuscript journal to be controlled by the pupils under the guidance of a teacher. This journal would furnish a motive and an opportunity for writing correct and fluent English. The journal would serve to give expression to the social spirit of the school community through brief reports of the doings of the various school clubs and of the achievements of pupils and ex-pupils. It would also include short stories, poems, and other compositions by the pupils.

### Picture Talks and Blackboard Sketches.

Pictures are for admiration and contemplation, exclamation, and, finally, for conversation. Only those pictures which, by their beauty, incident, or life analogy, are capable of stirring the spontaneous interest of the children, and their desire for self-expression, are suitable for this work. Therefore, the quality, simplicity, and composition of the picture are of primary importance.

As in other forms of verbal expression, the language of the children should be free and natural, and the errors in grammatical construction and pronunciation corrected without destroying the spontaneity of the child's effort.

Collective talks in class are rarely very successful; so much depends on the appeal of the picture to all children at the same time, and so much on the tact and ability of the teacher in affording equal opportunity to those who desire to talk and those who should be encouraged to talk.



Individual and small-group talks are generally more effective, but they require larger collections of well-chosen, neatly-mounted pictures. Good class collections are therefore very useful.

The stages of growth in the self-expression of children in regard to pictures are enumeration, description, interpretation. It is desirable that they be led in interesting ways, and as soon as possible to interpretation.

To absorb the meaning and sentiment, to supply the imaginary conversations, to dramatise the incidents and situations, and to retell the story in reasonably correct language are the main factors in securing intelligent interpretation. Excellent beginnings for this class of work may be made through illustrations of stories, nursery rhymes, and reading lessons.

Co-operative work between teacher and class in the making of poster, frieze, and blackboard illustrations of interesting items of the class activity is the most stimulating and productive form of picture talk. The picture which grows, as it were, under the eyes of the children, and embodies their suggestions and comments, stimulates their expectation, and utilises their hand-work, is of the utmost value and delight to them, and the most provocative of good verbal expression.

All teachers in Infants' Schools should endeavour to cultivate facility in blackboard sketching and other forms of illustration for this purpose.

### **Composition in the Infant School.**

The objective work in word and sentence making, advised as supplementary practice in the reading exercises, is also fundamental to that of composition. Indeed it is in this initial step that the desire to express ideas in visible form is first generated. From the correct making of a sentence with movable type, to the reproduction of it in written form, is but a step—an important step which children should be encouraged to take as soon as the technique of the particular sentence is mastered. Practice in sentence-making—objectively, orally, and in writing—lies at the root of successful written composition.

The eye-impression of a sentence-form with its correct beginning and ending takes time to fix. Tests of the reliability of memory in regard to sentence forms should be frequently given, the children being asked to reproduce some of the more interesting sentences from the reading lesson. As the interest of the children increases, through being stimulated in the "Play Way," memory reproduction of a spoken sentence in correct form may be added. In this way the habit of observing the correct written form, and the habit of listening for the voice inflections which mark the spoken sentence, will grow. The boy will at last become conscious that he thinks, speaks, and writes in sentences.

A child's first efforts at written composition are attempts to talk on paper. The range of ideas and the general language faults are much the same as in speech. Writing under the propulsion of interesting thought, and without complete knowledge of the necessary technique, he is apt to ignore all formal considerations of spelling, sentence formation, and grammar. These are matters for careful correction. Some of the errors are general in character, and can be most effectively corrected during class instruction; others require individual help and advice.

The errors having been corrected and the necessary instruction given, the composition should be rewritten with strict attention to necessary technical details.



"Free" composition should be *entirely free*. Children should choose their own subject, and have ample time and opportunity to write without interruption. Each child should read his own composition to the teacher and co-operate with her in the correction of errors.

This is an exercise to be done by the few rather than the many, but one in which all children should receive encouragement.

### Dramatization.

The educative value of play is now widely recognised, and dramatization is being used in almost every school subject. It varies from the simplest exercise in a primer class, as in showing in action what *hop* or *tug* means, to the performance of a play of Shakespeare's by High School pupils.

It is of two kinds—(a) improvised, (b) prepared. Each kind should have its place in every class. Mrs. Finlay-Johnson's "Dramatic Method of Teaching" (Nisbets) and H. Caldwell Cook's "The Play Way" (Heinemann) give excellent suggestions on the practice of dramatization in the school. Stevenson's "Child's Play" essay in "Virginibus Puerisque" and his "A Child's Garden of Verses" are full of suggestiveness as to the spirit of children's dramatization.

Preparation for the dramatization of a story is often better done in the playground than in the classroom. The work of selecting the characters, elaborating the dialogue and action, provision of "properties," and so on, should be done as much as possible by the children themselves. Children in the class for whom there is no part may act like the chorus in a Greek play, making comments on the action, bridging gaps in the action by narrative, &c.

The dramatizing instinct of children may be turned to good use in composition of an imaginative character. The exercises may be in the form of autobiographies and imaginary conversations. These may be followed at an appropriate stage by exercises which call into play the pupil's inventiveness and constructiveness in telling a story in dramatic form. In the upper classes the dramatizing of an episode from, say, a novel of Dickens will give an excellent series of written composition lessons. The completed play may be given at a Parents' Day or a breaking-up function.

Episodes in history make excellent material for dramatization, and may vary from the simplicity of Raleigh and his cloak to such as the trial of Charles I. Children who are to dramatize a piece of history immediately realise the need there is for knowing the facts of the case, for some insight into the characters of the men and women involved, for knowledge of costume, and so on. This provides a strong incentive to make full use of any books available, and places a premium on the historical novels in the school library.

A topic in civics is much more fully appreciated when it is dramatized, *e.g.*, a lesson on the Post Office in a junior class.

Practical first-aid teaching with its imaginary patient is another example of dramatization.

Geography also lends itself to dramatic treatment. The children may play one of their "Stories of Other Lands"; a boy may impersonate a town, a river, a volcano; a boat may be unloaded and reloaded at a certain port, boys acting as specific parts of the cargo.

A similar type of dramatization is valuable in lower class nature study, a boy becoming the mouthpiece of the plant, insect, or what not.



### Lecturettes.

Those who would like to study one good method of handling the child lecturette suggested in the Syllabus for 5th and 6th Classes, are referred to H. Caldwell Cook's book "The Play Way." But the idea is many-sided, and each teacher may work out a scheme to suit his own conditions. Here is one method largely based on Cook's procedure.

Volunteers are invited to select a subject. Each chooses one in which he is interested or about which he feels he can give some information to his classmates. He names a date when he will be ready, and the programme of lectures is placed on the class-room wall. The variety of subjects, the intimate knowledge shown, the zeal displayed in research, and the freedom with which children speak on their subjects are remarkable. The class gives sympathetic attention, partly because the matter is good, partly because it is coming from one of themselves. At the close the lecturer is thanked and praised for his effort, and he goes back to his place feeling that he has done something worth while for the general good, and a new bond is established all round.

This idea may be extended to include readings, recitations, extempore speeches, dramatizations, compositions, lectures. The class selects one of its members, who chooses several others to assist him to keep the class programme of work supplied. The chief acts as chairman, opens the meetings, announces the performing members. The performers are open to criticism at the close or even during the period of performance. When the group in charge of the programme fails to give satisfaction, the class deposes them and elects a new chief.

The main idea to be kept in view is that the work shall be spontaneous, the teacher using no pressure, and appearing in the control as little as possible. He, as one of the audience, may take a share in the discussion of a lecturette, use his tact and judgment to help out a nervous beginner; but he should do nothing that will destroy originality or spontaneity.

To illustrate the value of interest and originality, three lectures from a school programme may be compared. The subjects were (1) The social condition of Scotland in the 17th century, (2) Aeroplanes, (3) The defences of Sydney Harbour.

No. 1.—The class was that year reading a Scottish story and a Scottish poem, and this lecture was prepared by a boy of 13 to help the class to a better understanding of the literature. It was a good lecture for a boy, well prepared and well delivered, but artificial and bearing frequent evidence of the adult thought and diction of the encyclopædia.

No. 2 was more interesting to the audience, showing a wealth of historical and technical information that made the teacher feel very humble on account of his ignorance of the subject. It held the audience because of the fascination of the flying machine, its one drawback being that neither lecturer nor audience had any other knowledge of aeroplanes than that gleaned from books and newspapers.

No. 3 lecture was given by a boy who, prior to that effort, had been a cipher in the class; but in fifteen minutes he sprang to a popularity which boys are always ready to accord to merit. He was the son of a garrison artilleryman, and had grown up among guns and defences. He knew where the guns were in Sydney Harbour and why they were put in their particular



positions; he knew the history of defence artillery and the improvements added from time to time to produce the perfect modern gun. These were subjects of daily conversation with his father, and he could talk about them in his own vocabulary. So, for a quarter of an hour or more he stood before his class and talked quite naturally and without hesitation to a group of hearers whose attention never wandered. The applause at the close gave undoubted evidence of the value attached to the lecture by the audience.

The subject was a reality to the lecturer, and by word and blackboard illustration he made it real to his hearers.

### THE CHILD'S LANGUAGE DIFFICULTIES.

The Syllabus makes correct speech one of the fundamental aims in the teaching of English. This includes the correct pronunciation of words, the use of words in their correct signification, grammatical accuracy, and completeness in the expression of the pupils' thoughts. The teacher's object should be to form right *habits* in speaking. The correct production of the vowel sounds, the correct use of the aspirate and final consonants, may be made habitual with children if due attention be given to the correction of errors of this kind as they occur. Grammatical accuracy does not demand a knowledge of formal grammar; it depends rather on the imitation of good models, and requires that errors be corrected as they arise by the substitution of the right expression for the wrong one. It is not desirable to give specially-made incorrect sentences to be corrected; examples of this kind will probably be supplied by the speech of the children themselves, and, if they are not, it is unnecessary to provide them.

Owing to the incorrect models in the language environment of the majority of children, they have certain difficulties in expressing themselves correctly in both speech and writing. It is an important function of the teacher to note these difficulties, devise means to enable the child to deal with them step by step, and then to see that the use of the correct form becomes automatic. The work to be done in this field will vary a good deal in different neighbourhoods, owing to the differences in the out-of-school life of the children. The teacher's method of dealing with this side of the language work is left to himself. Grammar in the narrow sense—grammar that begins with picking out nouns and verbs and ends with the parsing and analysis of a complex sentence, is not prescribed in this syllabus. "In the earlier stages we should not teach grammar at all, and in the later stages teach a broader form of grammar. For grammar means the study of Letters; it means the science that lies behind the art of literature and the practice of composition. The course of study does not lead up to parsing and analysis; it leads up to a critical examination of standard prose and standard poetry, and to the revision and correction of one's own writings." ("Teaching the Mother Tongue": P. S. Ballard.) Grammatical terms will be used naturally by the teacher whenever their use saves time and makes for clearness. The meaning of the terms will gradually come to be understood to the pupil, not by definitions but by their use in connections, which of themselves make their reference clear. The way in which such a word as "paragraph" comes to be understood by school boys will illustrate this. Even in 3rd class children understand what is meant by "Read the next paragraph," though even after much study and practice of paragraphing they might fail to define it in 6th class. Teachers will use grammar just so far as they find it useful in giving their pupils a command of the mother



tongue. A teacher may use a grammatical technique in dealing with language difficulties if he believes such a technique to be the best to give his pupils power to cope with their difficulties successfully. But teachers who believe in the "direct method" of teaching the mother tongue have the same freedom to teach English without grammatical parsing and analysis. But, whether a grammatical or direct method be used, it is expected that power to use the mother tongue with reasonable correctness shall be achieved before children finish their Primary School course. The effectiveness of the language lessons will be judged by the way they function in the child's spoken and written expression.

This emphasises the importance of habituation, and should impress on teachers the need to observe the laws of habit forming in their language work. It will be noted that often (1) an incorrect habit has to be overcome, (2) a correct habit substituted for it. This involves:

- (a) A short lesson to clear up the point at issue, as illustrated below.
- (b) Drill in the use of the correct form.
- (c) Substitution of the correct for the incorrect form at all times (except where the pupil is struggling with new thought).

Some of the commonest of the language difficulties of Australian children have been listed in these notes. There is no need to treat any of these in class if the children's language environment has given the pupils power to use correct forms; but where this is not the case carefully-planned lessons, fruitful drill, and steady, good-humoured insistence on the use of correct forms in all lessons in both speech and writing must be brought to bear on the child to give him the power he lacks.

The method used in Nature-study should be applied in language work. The children, that is to say, must study specimens as much in the English lesson as in the Nature-study period, specimens of English replacing animals, plants, &c., as the material of observation from which language facts are to be arrived at. Matter that has been made very familiar to the children in reading lessons makes suitable material to use in language lessons.

Pupils whose curiosity has been roused will take as keen pleasure in finding language specimens as they do in finding Nature-study specimens. It is seldom advisable to exhaust a language topic in a single lesson. The lesson has done sufficient if it gives a clear view of some specific language phenomenon, with power to recognise it when it occurs in the course of reading or of listening to speech. Future activity in this field will be based on two instincts—(1) *Curiosity* roused during the language lesson, (2) *Sense of power* resulting from successful use of the insight gained. If the teaching is successful, this activity will be spontaneous on the pupil's part. He will say, e.g., when a classmate uses some tabooed expression, "*These kind* is never right," or he interpolates the correct form "*This kind*" or "*These kinds*" for the speaker to substitute for his wrong form; or in silent reading he finds another contraction for his contraction list, and joyfully announces the fact, or recognises an instance of the comma used to mark off an appositional phrase. And so on through the whole range of language phenomena as the developing course reveals each.



### Brief Typical Suggestions for Language Lessons.

#### 1. To correct the use of "don't" for "doesn't."

Australian children use the negative "don't" correctly when that form is required, but they frequently use "don't" when the form "doesn't" is called for. A corresponding mistake is seldom made with the positive forms "does" and "do." The teacher may therefore get the pupils to form a number of sentences containing "does" and "do," which may be written on the blackboard in two columns.

For example

Tom *does* his sums well.

These boys *do* their sums well.

Mother *does* a great deal for us,  
&c.

I *do* all my work,  
&c.

The negative uncontracted forms of these sentences may then be written to express the opposite meaning—

Tom *does not* do his sums well.

These boys *do not* do their sums well.

Mother *does not* do a great deal for us,  
&c.

I *do not* do all my work,  
&c.

Next the sentences may be written with the contractions—

Tom *doesn't* do his sums well.

These boys *don't* do their sums well.

Mother *doesn't* do a great deal for us,  
&c.

I *don't* do all my work,  
&c.

Drill is wanted not in the use of "don't" but in the use of "doesn't." When in doubt a boy should use the positive form, and then select the correct form of the negative.

#### 2. To enable pupils to use *may* and *can* correctly.

Let the class discuss the meaning of sentences like "Tom can swim," "Tom may swim," leading to the making of the distinction between ability to swim and permission to swim. Follow up with sentences supplied by members of the class to fix the distinction. Ask whether a boy is sensible who says, "Can I write my name on my book?" What did he really want to know? Clinch the teaching by dealing with any instance that occurs in class, as when a boy says, "Can I go at half-past three?"

#### 3. To enable pupils to determine when to use "You and I," when "You and me" in a sentence. Suppose a boy wants to make the statement, "Mother sent the cake for you and me," and is in doubt whether he should not say, "Mother sent the cake for you and I."

Let him break the sentence up into two:

"Mother sent the cake for you."

"Mother sent the cake for me."



In these sentences the boy will not be in doubt about the use of *me*. Let him be told that the same forms of the pronouns must be used in the combined as in the separate sentences.

An analogous treatment will enable him to decide that the form "*You and I* went to school" must be used, not "*You and me* went to school," for we say:

*You* went to school.  
*I* went to school.

### Children's Language Difficulties.

Mistakes commonly made by children:—

(a) *Forms always wrong—*

*Ain't, Says I, these kind, these sort, them books, that* for so before an adjective or adverb (*that bad, brung, wisht* (for *wish*), *drownded, drawed, writ*; would of or could of (for *would have, could have*); *uster* (used to), and so on.

(b) *Forms calling for the exercise of judgment—*

1. Singular form of verb used for the plural (particularly *is* or *was* for *are* and *were*).
2. The past participle for the past tense of common irregular verbs (e.g., *come, run, seen, done, rung, sung, sunk*, for *came, ran, saw, did, rang, sang, sank*).
3. *Never* for *not*. Double negatives (e.g., *He didn't hardly have any, He didn't have none, &c.*).
4. Redundant pronoun (*The king he . . .*).
5. *Don't* for *doesn't*.
6. Over use of *got*; distinction between *to have* and *to get*.
7. Confusion between forms of verbs (*lie* and *lay*; *rise* and *raise*; *teach* and *learn, &c.*).
8. Use of *each, every, either, and neither* as though they were plurals.
9. Confusion of *among* and *between*.
10. Use of *a* and *an*; long and short pronunciation of *the*; a kind of a basket. Difference between "a red and white cow" and "a red and a white cow."
11. *May* and *can*.
12. Superlative for comparative.
13. Misplaced modifiers (e.g., *He only* went to sleep on duty once). Difference in meaning between "Mary only dropped the plates" and "Mary dropped only the plates."
14. The use of *who* and of *which*.
15. Repetition of preposition with relative (The car in which he went *in* broke down); use of *in* for *into*; of a Monday for on Mondays; *to* for *from*; e.g., different *to*; *so as* for *so that*.
16. Introducing a subordinate clause—*Like* for *as* (He did it *like* I wanted him to); *Without* for *unless* (I wouldn't go *without* he does).
17. Senseless use of *like* (He was naughty *like*); use of *all* for *many* (*All* the sheep died in the drought).



18. Redundant use of *there was* (*There was* a man went down the street; of *what* (He did as much as *what* he could; This is bigger than *what* yours is).
19. Wrong use of *too* (Mary is not *too* well to-day); of *terrible* (He was *terrible* tired).
20. *Shall* and *will* to express—
  - (1) Futurity.
  - (2) Compulsion or determination.
21. Concords that present difficulty in the number of verbs, such as:—Not only Tom but also Jack *were* (for *was*) late. Jack as well as Jim *were* (for *was*) late. Not one of his friends *were* present (for *was* present). Neither Jim nor Mary *were* present (for *was* present). Clauses with a singular subject followed by a phrase containing plurals—The wrapper round the books *were* damp (for *was* damp). (See 8 above.)
22. Use of plural pronoun to refer to *each*, *everybody*, *anybody*, &c.
23. Use of the nominative and objective forms of pronouns that give trouble, such as: *You and I*, *you and me*; *They and I*, *they and me*; *she and I*; *her and me*; *he and I*, *him and me*; *we two*; *us two*; *we children*, *us children*; *my sister and I*, *my sister and me*. Pronouns following *than*, *as well as*, &c.
24. When to use *whom* not *who*.
25. Omission of necessary words: *e.g.*, "West Australia is larger than any State in Australia" (other). "She is as young or younger than her cousin" (as young as). "I always have and always will do it" (have *done* it).
26. Difference in meaning in such statements as—
 

He likes you better than me.	}
He likes you better than I.	
He hurt Jack more than me.	}
He hurt Jack more than I.	
27. Sequence of tenses as required in composition.
28. Wrong and right use of participles (Compare, *e.g.*, "Going home the purse was lost" (wrong) with "Going home Mary lost her purse" (right).

Teachers can obtain many helpful suggestions for language lessons from books like:

- "The Mother Tongue" (Ginn & Co.).
- "Sentence Building" (Macmillan).
- "Suggestive Lessons in English" (McDougall).

### Necessity for Full and Complete Answers.

From an early stage onwards pupils should be required to express themselves fully and completely. A statement may be made in a word or two without any grasp of its thought connection. At all stages answers should be given in a form so complete as to express fully the information to be supplied. In the more advanced classes the pupil should be able to express himself in continuous and connected statement. Treated in this way every oral lesson furnishes an exercise in composition, and the child not only acquires facility in the use of language, but secures a more complete command of ideas by the full statement of them.



### Questioning.

An underlying supposition in this Syllabus is that individual self-activity on the pupil's part shall replace continuous direction by the teacher. In any class when the teacher is continually talking it is clear that such self-activity in the pupils is impossible, and such a condition of things is a clear indication of inferior teaching. A curious irony has made the school a place where the teacher is continually asking questions (often long and wordy) and a small fraction of the class answering them (often in a very fragmentary manner). Active thought in a class is indicated by spontaneous comment. Conversation—real give-and-take among the members of the class—is much more educational than mere question and answer. Long series of detailed questions by the teacher take away all possibility of initiative on the part of pupils. Questions should be so framed that they compel completeness of thought-expression on the pupil's part, and invite a series of sentences rather than a fraction of one. If the teacher asks, "What are the products of the Western Plains?" he tempts the child to reply with a mere catalogue. He is much more likely to get a topical answer if he asks, "What do you know of the products of the Western Plains?"

### Paragraphing.

The word "paragraph" will be familiar to children in connection with their reading lessons. It should be used without definition.

To give pupils a realisation of what paragraphing means, the teacher may take a familiar badly arranged letter actually written in class, possibly some such effort as the following:—

I got your letter last week. The weather has been very dry lately. The cows are very poor. I am in fourth class. I was glad when dad brought your letter back from town on Monday. Daisy was bogged in the dam yesterday. Father and Jack had a bother getting her out. My teacher is Miss Brown. There is hardly any grass for the cattle and horses. We had a school picnic before Christmas. My letter is not as long as yours.

Your loving mate,

DICK.

The letter contains eleven sentences, but deals with only four topics:

- (1) The letter received (two sentences).
- (2) The weather and its effects (five sentences).
- (3) The school (three sentences).
- (4) The writer's letter (one sentence).

If the teacher places (1) before the two sentences about the letter received, (2) before the five relating to the weather, (3) before the three referring to the school, and (4) before the remaining sentence, then lets the pupil re-write his letter, grouping the sentences as numbered, and read the two letters in succession, the pupil cannot fail to feel the improvement effected.

This may lead to the study of a familiar lesson in the School Magazine from the point of view of its paragraphing. The outward form of the paragraph may be noted. It is indented, always begins on a fresh line, contains a varying number of sentences, but deals with one specific topic only. Power to name concisely and correctly the subject of a paragraph should be



cultivated. When a boy can do this and show how each sentence is related to the subject he is not likely to find much difficulty in writing his own compositions in paragraphs.

The study of a well-knit paragraph and of a loose and ill-constructed paragraph side by side will lead to an appreciation of the value of unity in the construction of paragraphs.

The examination of a story containing conversation will reveal to the children the fact that each separate speech requires a separate paragraph.

A frequent exercise should be the making of notes before beginning a composition without order as they occur to the mind and then rearranging them in groups for paragraphs.

Occasionally the paragraphs to be used in a specific composition may be fixed by class discussion. Suppose five to be determined on. The class may now be numbered off in fives, and each pupil may set to work to write the paragraph corresponding to his number. The reading aloud of a series of versions of the same paragraph is then very suggestive, and may lead to self-criticism or mutual criticism of a helpful kind. Or a pupil may be selected from each group in turn to read a paragraph, so making a complete composition. Thus ideas of unity, sequence, and completeness, and so on, are developed by activity instead of mere dogmatism on the teacher's part.

### Capitals.

From the beginning the teacher should herself use capitals correctly in everything she writes for the children, and the children will take delight in doing so in their work. Before the end of Class 2 it is expected that the habit of using capitals to begin sentences will be fixed in the children.

Similarly in Class 3 the habit of using capitals for initials, days of the week, months, holidays, to begin lines of poetry, and for names of places should be firmly set up in the children. Class 4 should fix the capitalising habit for adjectives formed from proper nouns and for headings, and Class 5 that of capitalising the first word of a quoted sentence.

The class named shows where the habit is expected to be fixed so that the child uses capitals for the purposes specified without outside suggestion: he will, of course, have used them more or less unsystematically where required long before this. Systematic use of dictation will help to fix the capitalising habit as it does other matters of form in written expression.

Habit to be fixed in—

- Class 2—Begin sentence.
- „ 2—Pronoun I.
- „ 2—People's names.
- „ 3—Initials.
- „ 3—Days of week.
- „ 3—Months.
- „ 3—Holidays.
- „ 3—Names of places.
- „ 3—To begin each line of poetry.
- „ 4—Adjective from proper noun.
- „ 4—Headings.
- „ 5—To begin quoted sentence.



**Punctuation.**

Power to punctuate correctly should be progressively built up throughout the Primary School. Children will be interested one by one in the various stops and their uses. They will take pleasure in following up a lesson, for example, on some specific use of the comma by ferreting out examples of it from familiar reading lessons. The habit of finishing statements with a full stop will be aimed at from the beginning; the use of the full stop and question mark should be practically automatic from Class 2 onwards. In Class 3 the use of the apostrophe in contractions and simple forms of the possessive should be made habitual. The simpler uses of the comma should be fixed in Class 4. Class 5 should fix the power to use quotation marks and the exclamation mark, and develop the use of the comma; and Class 6 the quoting of titles and the use of the hyphen. Some of the better pupils may be able to distinguish between the function of the semicolon and the full stop, but as a rule Primary School children cannot be expected to appreciate such fine distinctions.

The testing of punctuation should always be kept in view in building dictation tests.

To be fixed in—

## Class 2—Full stop.

- „ 2—Question mark.
- „ 3—Apostrophe in contractions—children to commence collection of samples. (You're . . .).
- Apostrophe for possessive—
- „ 3—(1) Dog's, Frank's, Mary's.
- „ 4—(2) The two boys' ball; birds' nests.
- „ 5—(3) Man's, men's coats.
- „ 6—(4) Douglas's, Douglas' hat.
- „ 6—(5) George V's accession.
- „ 5—Quotation marks. Unbroken quotations.
- „ 6—Quotation marks. Broken quotations. Title of book, lecture, or story mentioned in writing.
- „ 4—Comma: Simple uses begin.
- „ 5—Use of comma to mark off (1) Person addressed from rest of sentence.
- „ 5—(2) Parts of series (single words, phrases, clauses). Series of (a) nouns, (b) adjectives, (c) co-ordinate phrases, (d) co-ordinate clauses.
- „ 5—(3) Apposition.
- „ 5—(4) Transposed part of sentence.



5 & 6—(5) To separate quotation from rest of sentence (unless quotation is a question).

„ 6—Hyphen—Do not allow children to break words wrongly at the end of lines.

„ 5—Exclamation mark.

„ 4—Abbreviations in common use, *e.g.*, Mr., Mrs., Dr., St.

„ 5—Abbreviation of months.

„ 4—Addressing an envelope.

„ 6—Punctuation of a letter.

NOTE.—Brackets are not to be used by children to indicate a mistake. The mistake should be marked out.

### Spelling.

The emphasis in spelling should be laid on such words as the child requires to express himself in writing. No spelling lists are prescribed in the Syllabus, the responsibility for securing in the pupil a continuously growing spelling vocabulary being cast upon the teacher. It is hoped that teachers will be able to arouse an interest in spelling in their pupils so that the children take a pride in seeing their written vocabulary grow to meet the demands of their expanding range of thought as they rise from class to class. Each pupil should keep a personal list, in which all the useful words that present difficulty to him in spelling are noted. These lists need to be very carefully supervised. The children should be encouraged to con them over diligently; there should be much mutual testing among the pupils. Good spellers may be given bad spellers to train. The best two spellers may be appointed spelling captains, and may be allowed to pick sides till each has half the class to captain. Then contests may be held between the teams at regular intervals, the captain on each side organising to bring up the spelling power of his own side in the periods between contests.

The teacher's class list will contain all the generally useful words from the individual lists and from the types that have been made the basis of definite spelling lessons. The children's judgment of values in spelling may be trained by discussing whether or not specific words shall be included in the class list. A consistent aim should be to set up a sense of responsibility for the mastery of all words admitted to the class list.

The making of fair copies of words from the pupils' personal lists makes a very useful type of writing lesson. Another useful exercise is for each pupil to write from memory in a given time, as many as he can of the words that have been troublesome to him in the past.

English spelling is so freakish that spelling rules are apt to cause as many errors as they prevent unless they are dealt with very skilfully. When a child hears a strange word for the first time he is likely to spell it consciously or unconsciously in some particular way, especially if he has been habituated to spelling for a year or two. For this reason it is well for the teacher to write up such a word on the board without comment, at least if it





is one that the child will soon require to use in written expression. Spelling should be passed over to the unconscious mind as fully as possible, and to do this effectively the greatest care should be exercised to prevent wrong forms from being impressed on the mind. If a word is anomalous in form, as so many English words are, it is better to treat it as a whole and without any association (even by way of contrast) with words of more regular type. But in the case of words of the same definite type, word grouping is of great value. In teaching children such words, one or two may be supplied by the teacher so that the children realise what the type is; then they may give such other words as they can belonging to the group. Active interest will thus be aroused, and for a week or two the pupils will be lynx-eyed for other instances of the same type. Pupils should have an exercise book, small in size, but containing good paper and strongly bound (perhaps by the pupil himself in the handwork lesson). Many groups of words should gradually be gathered in this spelling book, space being left in the columns for additional examples whenever they are found. Examples of helpful grouping will occur to any practical teacher:—

- (1) Could, would, should.
- (2) Table, fable, stable, &c.
- (3) Rough, tough, enough, &c.
- (4) Curtain, mountain, chieftain, &c.
- (5) Succeed, proceed, exceed.

The entry of words in the spelling book should be most carefully done. It forms a very appropriate writing lesson. There is need for the greatest vigilance to prevent errors from creeping in. Probably not more than two columns should go to the page.

Word building if well planned will aid in the development of power to spell. Take as an example the formation of adjectives from nouns by using the suffix "y"—

dirt	dirty
bush	bushy
&c.	

There is a tendency to insert an *e* before the *y*. To overcome this give such examples as—

stone	stony
bone	bony

and set the class word-hunting for other instances. They will probably form a rule that there is to be no *e* before the *y* in such adjectives. Accept such a rule if they formulate it, but do not give exceptions. Should a boy chance to find the word "clayey" it will form a subject for animated discussion by the pupils if they have been genuinely interested in spelling, and some of them will see without help from the teacher that the *y* at the end of the noun *clay* accounts for the anomaly.



Examples such as the following need to be studied:—

penny	pennies	day	days
pony	ponies	donkey	donkeys
baby	babies	boy	boys
&c.		&c.	

leading to the fact that *ay, ey, oy* nouns add *s* to form the plural, while the other plurals end in *ies*. Pupils should greatly extend these two lists.

Other examples of word-building to help spelling—

dirty, dirtier, dirtiest.	smoky, smokier, smokiest.
happy, happier, happiest.	stony, stonier, stoniest.
&c.	

knife, knives.	potato, potatoes.
thief, thieves.	tomato, tomatoes.
&c.	

compel, compels, compelled, compelling.  
travel, travels, traveller, travelled.  
&c.

occur, occurs, occurred, occurring.  
prefer, prefers, preferred, preferring.  
&c.

procure, procured, procuring.  
secure, secured, securing.  
&c.

bad, badly.	sincere, sincerely.
sweet, sweetly.	precise, precisely.
&c.	
similar, dissimilar.	appoint, disappoint.
satisfied, dissatisfied.	count, discount.
&c.	
manage, manageable.	note, notable.
change, changeable.	dispute, disputable.
&c.	

service, serviceable.  
notice, noticeable.  
&c.

The reason for the retention of the *e* before *able* in two of the above groups will be easily appreciated by the children if they are asked to pronounce *gable* and *cable* and then compare them with *manageable* or *serviceable*. Sixth class pupils would then see the reason for the spelling of words like *vengeance*, *courageous*.



The stressing of pronunciation is a great help in some spelling difficulties. If, for example, one of the *r*'s were omitted in *occurring* it would have to be pronounced so as to rhyme with *procuring*. The splitting of a long word into sections often removes the difficulty a pupil finds in spelling them, and saying words so as to make their spelling easy should be a frequent preliminary exercise—

in de pend ence	(the last syllable to be especially plain).
as sist ants	} Pronounce so as to bring out difference in the final syllables,
as sist ance	
per man ent	

and so on.

Homonyms are sometimes treated unwisely. Frequently one of the forms in the group is in very common use while the other is much less common. When this is the case the one in common use should be learned and the other (or others) left alone till the child's growing experience calls for their employment. *All* and *awl* are examples of this kind. But there are homonyms in which the different forms are used with almost equal frequency. Examples are *their* and *there*; *to*, *two*, *too*. In such cases the children are not long in learning the different forms but have difficulty in knowing when to use one form, when another. This they must learn from numerous examples, many being supplied by the pupils. Until such forms are used with confidence, one from each group should be brought into practically every dictation test.

When pupils are going to treat a certain topic in composition a good spelling preparation is made by having all the words which the subject suggests by free association written up on the board, then re-arranged in paragraph groups by the pupils, copied carefully in a writing lesson, and later used in writing the composition.

### Spelling Tests.

Children who express themselves freely in writing and spell with reasonable correctness when so doing have reached the essential spelling standard, but the teacher will frequently give specific tests in spelling. The filling in of omitted words is a useful test for homonyms. The use of dictation as a test is dealt with in a separate note. The division of a class into two, three, or four sections captained by the two, three, or four best spellers is recommended; each captain then organises to strengthen the spelling of the members of his team, and team competitions take place at stated intervals, thus stimulating interest in spelling. Written tests are to be preferred to oral ones.

But teachers will find it a great advantage to use, say once a quarter, some standard tests such as those devised by Ayres, or Starch (See Starch's "Educational Measurements"). It is to be noted, of course, that if these tests are to act as measures of the pupil's power to spell, the tests must not be used as teaching lists. Tests carried out in New South Wales show that during the Primary School period the power to spell the combined spoken and literary English vocabulary grows at the rate of about ten per cent. per annum. These objective tests, if used in a scientific manner, remove a good deal of the arbitrariness of the ordinary spelling tests.



*List of 1,000 Commonest English Words, collected by Dr. Ayres.*

me	did	way	stone
do	like	get	free
and	six	home	lake
go	boy	much	page
at	book	call	nice
on	by	long	end
a	have	love	fall
it	are	then	feet
is	had	house	went
she	over	year	back
can	must	to	away
see	make	I	paper
run	school	as	put
the	street	send	each
in	say	one	soon
so	come	has	came
no	hand	some	Sunday
now	ring	if	show
man	live	how	Monday
ten	kill	her	yet
bed	late	them	find
top	let	other	give
he	big	baby	new
you	mother	well	letter
will	three	about	take
we	land	men	Mr.
an	cold	for	after
my	hot	ran	thing
up	hat	was	what
last	child	that	than
not	ice	his	its
us	play	led	very
am	sea	lay	or
good	day	nine	thank
little	eat	face	dear
ago	sit	miss	west
old	lot	ride	sold
bad	box	tree	told
red	belong	sick	best
of	door	got	form
be	yes	north	far
but	low	white	gave
this	soft	spent	alike
all	stand	foot	add
your	yard	blow	seven
out	bring	block	forget
time	tell	spring	happy
may	five	river	noon
into	ball	plant	think
him	law	cut	sister
to-day	ask	song	cast
look	just	winter	card



*List of 1,000 Commonest English Words, &c.—continued.*

south	every	wife	easy
deep	under	state	catch
inside	most	July	black
blue	made	head	warm
post	said	story	unless
town	work	open	clothing
stay	our	short	began
grand	more	lady	able
outside	when	reach	gone
dark	from	better	suit
band	wind	water	track
game	print	round	watch
boat	air	cost	dash
rest	fill	price	fell
east	along	become	fight
son	lost	class	buy
help	name	horse	stop
hard	room	care	walk
race	hope	try	grant
cover	same	move	soap
fire	glad	delay	news
age	with	pound	small
gold	mine	behind	war
read	became	around	summer
fine	brother	burn	above
cannot	rain	camp	express
May	keep	bear	turn
line	start	clear	lesson
left	mail	clean	half
ship	eye	spell	father
train	glass	poor	anything
saw	party	finish	table
pay	upon	hurt	high
large	two	maybe	talk
near	they	across	June
down	would	to-night	right
why	any	tenth	date
bill	could	sir	road
want	should	these	March
girl	city	club	next
part	only	seen	indeed
still	where	felt	four
place	week	full	herself
report	first	fail	power
never	sent	set	wish
found	mile	stamp	because
side	seem	light	world
kind	even	coming	country
life	without	cent	meet
here	afternoon	night	another
car	Friday	pass	trip
word	hour	shut	list



*List of 1,000 Commonest English Words, &c.—continued.*

people	bought	money	cause
ever	paid	ready	study
held	enter	omit	himself
church	railroad	anyway	matter
once	unable	except	use
own	ticket	aunt	thought
before	account	capture	person
know	driven	wrote	nor
were	real	else	January
dead	recover	bridge	mean
leave	mountain	offer	vote
early	steamer	suffer	caught
close	speak	built	copy
flower	past	centre	act
nothing	might	front	been
ground	begin	rule	yesterday
lead	contract	carry	among
such	deal	chain	question
many	almost	death	doctor
morning	brought	learn	hear
however	less	wonder	size
mind	event	tire	December
shall	off	pair	dozen
alone	true	check	there
order	took	prove	tax
third	again	heard	number
push	inform	inspect	October
point	both	itself	reason
within	heart	always	fifth
done	month	something	eight
body	children	write	afraid
trust	build	expect	uncle
extra	understand	need	rather
dress	follow	thus	comfort
beside	charge	woman	elect
teach	says	young	aboard
happen	member	fair	gaol
begun	case	dollar	shed
collect	while	evening	retire
file	also	plan	refuse
provide	return	broke	district
sight	those	feel	restrain
stood	office	sure	royal
fix	great	leased	objection
born	Miss	sorry	pleasure
goes	who	press	navy
hold	died	God	fourth
drill	change	teacher	population
army	wire	November	proper
pretty	few	subject	judge
stole	please	April	weather
income	picture	history	worth



*List of 1,000 Commonest English Words, &c.—continued.*

contain	don't	which	either
figure	Thursday	length	effort
sudden	spend	destroy	important
forty	enjoy	newspaper	due
instead	awful	daughter	include
throw	usual	answer	running
personal	complaint	reply	allow
everything	auto	oblige	position
rate	vacation	sail	field
chief	beautiful	cities	ledge
perfect	flight	known	claim
second	travel	several	primary
slide	rapid	desire	result
farther	repair	nearly	Saturday
duty	trouble	sometimes	appoint
intend	entrance	declare	information
company	importance	engage	whom
quite	carried	final	arrest
none	loss	terrible	themselves
knew	fortune	surprise	special
remain	empire	period	women
direct	mayor	addition	present
appear	wait	employ	action
liberty	beg	property	justice
enough	degree	select	gentlemen
fact	prison	connection	enclose
board	engine	firm	await
September	visit	region	suppose
station	guest	convict	wonderful
attend	department	private	direction
between	obtain	command	forward
public	family	debate	although
friend	favour	crowd	prompt
during	Mrs.	factory	attempt
through	husband	publish	whose
police	amount	represent	statement
until	human	term	perhaps
Madam	view	section	their
truly	election	relative	imprison
whole	clerk	progress	written
address	though	entire	arrange
request	o'clock	president	forenoon
raise	support	measure	lose
August	does	famous	combination
Tuesday	regard	serve	avenue
struck	escape	estate	neighbour
getting	since	remember	weigh



*List of 1,000 Commonest English Words, &c.—continued.*

wear	popular	accident	senate
entertain	Christmas	invitation	receive
salary	interest	accept	respectfully
visitor	often	impossible	agreement
publication	stopped	concern	unfortunate
machine	motion	associate	majority
toward	theatre	automobile	elaborate
success	improvement	various	citizen
drown	century	decide	necessary
adopt	total	entitle	divide
secure	mention	political	principal
honour	arrive	national	testimony
promise	supply	recent	discussion
wreck	assist	business	arrangement
prepare	difference	refer	reference
vessel	examination	minute	evidence
busy	particular	ought	experience
prefer	affair	absence	session
illustrate	course	conference	secretary
different	neither	Wednesday	association
object	local	really	career
provision	marriage	celebration	height
according	further	folks	organization
already	serious	meant	emergency
attention	doubt	earliest	appreciate
education	condition	whether	sincerely
director	government	distinguish	athletic
purpose	opinion	consideration	extreme
common	believe	colonies	practical
diamond	system	assure	proceed
together	possible	relief	cordially
convention	piece	occupy	character
increase	certain	probably	separate
manner	witness	foreign	February
feature	investigate	expense	immediate
article	therefore	responsible	convenient
service	too	beginning	receipt
injure	pleasant	application	preliminary
effect	guess	difficulty	disappoint
distribute	circular	scene	especially
general	argument	finally	annual
to-morrow	volume	develop	committee
consider	organize	circumstance	decision
against	summon	issue	principle
complete	official	material	judgment
search	victim	suggest	recommend
treasure	estimate	mere	allege.



Ayres' list contains none but common useful words, and may prove helpful to teachers in selecting words for spelling lessons. It is given for general information. Starch's lists are unsuitable for teaching purposes, but measure spelling ability very accurately. Jones's "100 Spelling Demons," which contain some of the most troublesome of the very common words of the English language, follow :—

which	can't	guess	they
their	sure	says	half
there	loose	having	break
separate	lose	just	buy
don't	Wednesday	doctor	again
meant	country	whether	very
business	February	believe	none
many	know	knew	week
friend	could	laid	often
some	seems	tear	whole
been	Tuesday	choose	won't
since	wear	tired	cough
used	answer	grammar	piece
always	two	minute	raise
where	too	any	ache
women	ready	much	read
done	forty	beginning	said
hear	hour	blue	hoarse
here	trouble	though	shoes
write	among	coming	to-night
writing	busy	early	wrote
heard	built	instead	enough
doves	colour	easy	truly
once	making	through	sugar
would	dear	every	straight.

### Dictation.

Dictation is generally regarded by teachers merely as a test of spelling. Where this is the case, much of its value as a preparation for written composition is lost. It should be used to test all matters of form in written work and fix correct habits in their use. If it is to secure this end, the exercises must be built by the teacher so as to introduce each point after it has been dealt with in a formal lesson and to provide frequent revision of points taught previously. Thus dictation would be used to test and set up correct usage in—

1. Spelling.
2. Punctuation.
3. Capitalization.
4. Abbreviation.
5. The possessive case.

For example, at the first dictation exercise after teaching the use of the question mark let one sentence at least be a question. Make no reference to its being a question. Probably one or two of the class will remember



and get the same fun out of the situation as from a game of "chasings." Repeat the test at the next dictation exercise and half the class will have the same satisfaction. In a week or two even the dullest boy will be sufficiently alert to put in the question mark without assistance. The secret of success is to throw responsibility on to the child.

It is important that progressively more difficult points should be taken up from time to time and class to class, *e.g.*, lessons on the possessive case of nouns should deal with the simplest forms first, such as children's names (Frank's, Mary's); then with cases like man's, men's; sheep's (both singular and plural); in class 6 forms like "Prince of Wales' tour" need to be taught. As soon as any one of these has been dealt with in the formal language lesson, it should be tested by dictation until its use has been made into a habit functioning freely in the boy's composition.

### Writing.

In reading no special method has been prescribed for the teacher to follow. The value of the method used will be judged by the success of the pupil in reading, *i.e.*, from his power of gathering ideas from script or printed matter. The number of ideas gathered by the pupil's unaided effort in a given time will, roughly, measure the effectiveness of the teaching of reading.

A similar freedom is given the teacher in the teaching of writing. His success will be judged by the number of letters of given quality the pupils can write in a given time.

The teacher will do well to make regular use of a standard writing scale in judging the quality of the children's writing.

Dr. Montessori recommends that the teaching of writing be divided into two preliminary exercises:—

- (1) To learn to control the writing implement (*i.e.*, the pencil).
- (2) To learn the shapes of the letters.

The former is done by allowing the pupil to outline a shape on paper by means of an inset, and then to practise filling it in with, preferably, a coloured lead pencil. The latter is accomplished by feeling sandpaper letters.

When these two processes have reached a certain stage the child "explodes" into writing, that is, takes spontaneously to writing.

Most educationalists recommend that early efforts at writing should be untrammelled by lines. Later a single guide line is desirable. Many teachers like double-ruled books, but their use is probably a good deal overdone in the schools.

Teachers who can set desirable writing models (and every teacher should be able to do so) may write them on tracing linen for use in their own class or school. These may be used by the children to imitate and then be applied to the copy to test its accuracy before another copy is made.

Self-criticism should be a prominent feature in the writing lesson. Unless a pupil really sees how his letter shapes are defective, he has little chance of improving them. Careless writing should not be tolerated at any time. On the other hand, captiousness on the teacher's part is not desirable.



The habit side of writing should never be overlooked by the teacher. If a child repeats a faulty letter shape for weeks at a time, the difficulty of getting him to make the correct shape is much more than doubled, for an incorrect habit has to be eliminated before the correct one can be established, and it is more difficult to eliminate than to establish a habit.

For writing drill the letters of the alphabet may be classified according to characteristics.

*Small letters*—Group 1.—i, u, w, t

Group 2.—n, m, r, v

Group 3.—o, a, d, c, e, x

Group 4.—l, b, h, k, f, p

Group 5.—j, g, y, q

Unclassified.—s, z.

*Capitals*—Group 1.—L, S, I, J, T, F, D

Group 2.—P, B, R, H, K

Group 3.—A, M, N, W

Group 4.—O, C, G, X, E

Group 5.—U, V, Y, Z, Q.

Drill lessons on a specific point in writing are seldom needed by every child in a class, and if imposed on children who do not need them they are worse than useless. One would expect, therefore, to find smaller and smaller groups in the portion of a class receiving specific instruction in writing from the teacher as one goes from the lower to the higher classes. Where pupils reach a satisfactory standard in letter shapes, junctions, slope, and so on, they should turn their attention to increasing their speed while maintaining the quality of their writing, and to making such applications of writing as are called for by the needs of the class or the individual (*e.g.*, fair copies of compositions, of poems, of words in the individual spelling book, samples of personal and business letters, and so on). In exercises aiming at increasing fluency and speed the value of rhythmic counting, tapping, and so on, should be remembered.

Among the writing habits to be watched from the first is the sitting position of the young writer. He should sit square to the front with feet firmly on the floor and slightly apart. His paper should be tilted about 15 degrees to the left. The forearms should be on the desk, the left hand being used to keep the paper in position. The writer's eyes should be about 12 inches from the writing-book. The child's chest should not touch the desk. Special attention should be paid to the manner of holding the pen from the earliest stages. When pencils are used they should be held as pens are.

To test the slope of the down stroke, which should be about 75 degrees from the horizontal, two set squares (one 45 degrees, one 50 degrees) are very useful. If one is placed with an edge along a line of writing, the other may be made to slide along the other edge giving a very quick and effective test of slope and straightness of down stroke.

Many teachers require their pupils to write with exaggerated loops, which interfere with the writing in the line above and that in the line below. This should be avoided as it increases the difficulty of the writing and reduces its legibility.

Pupils' handwriting will be judged more from the general character of the children's work books than from the special writing practice books. The aim of the teaching is to enable the pupils to write legibly and fluently with some beauty of form.



## MATHEMATICS.

*Work in Mathematics must be Practical.*

The practical purposes that mathematical work has to serve in the child's future life should regulate the character of it in school. The teaching of the subject should aim at the working of practical concrete examples, and readiness and accuracy in mechanical processes. No part of a child's primary school life should be wasted in attempting to solve problems that have little connection with actual experience, or in working mechanical sums which deal with numbers beyond his comprehension.

*Children under Six.*

It is not necessary to give any formal instruction in Arithmetic to children under 6 years of age. They may count the pupils present in the class, or objects in which they are interested, or count incidentally in connection with the various occupations of the class. They may also play number games and form simple figures by stick-laying, and in other ways. But they should not be required to memorise number relations.

*The Use of Counters.*

In the initial stage of teaching Arithmetic the activity of the child can be most profitably employed in the observation and handling of counters. By means of these he may realise number; he may find out for himself the relations between a number and those immediately above and below it; he may analyse the simple numbers and investigate the combinations of numbers; he may separate groups to find differences, combine equal groups to find products, and divide groups into equal parts. The counters used from day to day should not always be of the one kind.

*Work must Progress from Objects to Numbers.*

When the counters have fulfilled their purpose at any stage they should be laid aside, and abstract number dealt with. While numbers are first of all treated in connection with objects, it is essential in the elementary work to give familiarity with the number combinations and to secure *facility and accuracy in dealing with abstract numbers*. The pupil first thinks in terms of objects which he sees, afterwards in terms of number dissociated from the visible objects, and then applies his knowledge of number to objects not visible to him, but about which he can think.

*Need for Thorough Memorisation.*

The results obtained by the use of counters should be thoroughly memorised without delay. Otherwise the child goes on from step to step accumulating number facts which may be more or less understood, but are not really known. Thus his mind is confused and his true progress is hindered. By concentrating his attention upon one combination or a small group of combinations, and by *regular and systematic repetition*, he will gain perfect mastery of them, and be able to tell, for example, how many are 3 and 5 without hesitation. The repetition will be most effective when it takes a variety of forms. A very early form would be serial repetition which has a rhythmical effect; thus—1 and 1 are 2, 2 and 1 are 3, &c., or 2 and 2 are 4, 4 and 2 are 6, 6 and 2



are 8, &c. Then the teacher may vary the order by asking how many are 2 and 1, 1 and 1, 3 and 1, &c. It is reasonable to expect that all the addition combinations to 9 and 9 with the corresponding subtraction, shall be thoroughly memorised before the end of Class II. There are 81 such combinations in all, or, counting 3 and 5 and 5 and 3 as one combination, only 45. Even at the rate of one a week they would all be learned in about a year. If what is learned well one week is revised the next and every following week it will not be forgotten. It takes but a very short time to revise all the arithmetic a child learns in the first and second classes.

#### *Concrete Aids.*

Other concrete aids besides counters should be used. Common coins should be handled and exchanged for their equivalents. The cutting of an apple or other object into equal parts will illustrate the simple fractions. A great deal can be learned from the foot rule, which, besides its use in measuring, offers a great variety of examples of fractions. When a pupil comes to deal with weights and measures he should at every stage begin with the concrete. He should know *through his senses* what a yard, a pound, a gallon, a square yard, an acre, a cubic inch, &c., actually are before he is required to calculate respecting them. He should not merely see these things, but should, where possible, handle them, or mark them out, or make them, or use them. He should be frequently called upon to use his judgment with respect to lengths, weights, areas, and angle measurement. In introducing such a topic as interest, the use of a bank pass-book would give some reality to the instruction.

#### *The use of Common Signs.*

The use of the common signs for the four simple operations and the sign of equality might be introduced in the second class. Complicated exercises on the use of the symbols should be avoided, their uses in the most elementary applications being sufficient. The symbols once learned might be employed by pupils to represent processes used in the solution of concrete problems.

#### *The Study of Decimal Notation.*

The study of the decimal notation which commences in the first class with bundles or groups of ten, etc., is continued through the following classes until in the fifth and sixth it is extended to quantities less than unity. But only a knowledge of three places of decimals is required, and operations in decimals are limited to such easy examples as can be performed mentally. It is most important at every stage that the pupils have a clear notion of the place value of the figures with which they deal.

#### *Progressive Steps should be Carefully Graded.*

The various steps in the course should be carefully graded so that only one difficulty, or one new feature, shall be treated at a time. Where the adult mind leaps over several steps at once, the mind of the beginner must take them one by one, so that in the laying out of the instruction beforehand this minute subdivision of difficulty needs to be kept in view. Especially is this the case in dealing with the elementary mechanical operations.

#### *Oral Arithmetic.*

In the early stages the work in arithmetic should be almost wholly oral. The child learns certain number facts and expresses them in words. When he can make the figures and the signs of operation he will use them to express what he has learned. But throughout the course mental work is the



essential thing, and should occupy the greater part of the ordinary arithmetic lesson. Brisk oral drill will be of great benefit in any new work, in preparation for written work, in reviewing previous instruction, and in cultivating speed and accuracy. In new work or in making good some weak spot the drill should be focussed on the particular point; in review the oral exercises may be more varied. Even five minutes a day of lively oral drill will work wonderful improvement in a few months. The teacher may vary this kind of work by requiring promptly-written answers to questions worked orally or at sight from the blackboard.

#### *Written Work.*

At every new step the written work will at first merely express what the pupils have done mentally. Then very gradually the written exercises may be increased in length and difficulty. But no written work should be attempted for which the pupils have not been fully prepared by oral training. For instance, a child ought not to be set to add 3, 4, and 5 together till he knows perfectly how many are 3 and 4, and also 7 and 5, these being the items involved in the exercise. Similarly he should not attempt such a sum as  $85 \div 3$  unless he can tell instantly how many 3's there are in 8, and how many in 25. And so on throughout. Setting children written work for which they are not prepared does harm in two ways: (1) it leads to bad habits, such as counting instead of adding, and may also cause dawdling; (2) it causes much loss of time, what might reasonably be done in a few seconds being often spread over as many minutes. Numbers to be carried should not be written, nor should "crutches" be used.

#### *Setting-out of Work.*

Pupils should from the beginning arrange their work neatly and make good figures. They should not waste their time in the unnecessary use of the ruler and red ink. In the upper classes they should be trained to set out a clear and orderly statement of the steps in the solution of problems. No "rough" work in the sense of badly arranged work should be tolerated. In this respect, the teacher's work on the blackboard should be a model.

#### *Accuracy and Speed.*

Absolute accuracy is the first requisite in all arithmetical work. Accuracy is largely a matter of habit. Badly made figures are a frequent source of error. With suitable oral drill and right habits of setting out the work, the probability of errors occurring is reduced to a minimum. As a further safeguard the children should learn to check their own calculations.

The sort of training that secures accuracy also makes for speed. Short, simple exercises serve the purpose better than long, complicated ones. Instead of allowing so many minutes to a sum it is generally desirable to get so many sums done in a minute.

#### *Speed Standards.*

The following rates of working are given as a guide to the teacher in determining the amount that may be expected from the average pupil in a given time. They do not by any means express the best that can be attained; in fact, many teachers will find that their classes can exceed these standards.

Up to the present, most of the work of this kind has been done in the United States; and the following results are adapted from the report of the Survey Committee of the Cleveland Foundation. From a limited amount of



investigation in metropolitan schools there is reason to believe that when New South Wales standards are obtained, they will be somewhat higher than those quoted below.

These standards are of value both to the teacher and to the pupil. The teacher is able to determine (a) whether the class as a whole has attained a satisfactory standard; (b) what individuals in the class are below standard in any given operation. The pupil can be interested in his own progress, and will have a definite goal towards which to work.

The times given do not allow for setting down; only for working. It will therefore be necessary for the teacher to adopt some plan to have copies prepared.

As a final resort, the children themselves could make copies from the blackboard, these being kept for use on the following day or days. The papers will be distributed face down, and the pupils begin and stop on given signals. For the class result the average will be found. Thus, for the single column addition of five figures, the average, to be up to the standard quoted, should be at least four right for the 3rd Class, and five right for the 4th Class in the given time (30 seconds). The examples in each operation may be considered as types, thus allowing for slight variations in tests made from time to time. *There should be so many examples in each set that no pupil is able to finish all in the given time.*

<i>Addition.</i> —							Time, 30 seconds.
1	6	9	4	4	1	7	
2	6	5	1	2	3	7	
—	—	—	—	—	—	—	3rd Class, 13 right.
8	3	2	1	4	5	0	
6	0	4	5	8	9	7	
—	—	—	—	—	—	—	4th Class, 18 right.

[This test should have forty or more examples of this type.]

5	2	9	3	Time, 30 seconds.
2	8	7	7	
3	9	1	4	3rd Class, 4 right.
0	5	6	0	4th Class, 5 right.
4	1	7	5	5th Class, 6 right.

[The above test should have fifteen or more examples of this type.]

7493	Time, 3 minutes.
8126	
6485	5th Class, 3 right.
7591	
6174	6th Class, 4 right.

[Not less than nine examples of this type should be used.]

<i>Subtraction.</i> —							Time, 30 seconds.
7	11	9	8	12	4	0	
3	6	9	1	3	0		3rd Class, 9 right.
—	—	—	—	—	—	—	4th Class, 13 right.

[Not less than thirty such examples should be written down.]

526	1348	1365	Time, 1 minute.
456	709	728	3rd Class, 2 right.
—	—	—	4th Class, 5 right.
			5th Class, 7 right.
			6th Class, 8 right.

[Not less than sixteen such examples should be used.]



<i>Multiplication.</i> —	3	4	9	5	4	Time, 30 seconds.
	2	7	8	6	1	
	—	—	—	—	—	3rd Class, 7 right.
	2	7	9	5	4	4th Class, 12 right.
	9	6	5	2	8	
	—	—	—	—	—	

[Not less than thirty examples of this type to be used.]

9375	6482	Time, 1 minute.
2	7	4th Class, 4 right.
—	—	5th Class, 5 right.
		6th Class, 6 right.

[Not less than twelve examples of this type to be used.]

8356	3497	Time, 3 minutes.
29	73	5th Class, 2 right.
—	—	6th Class, 3 right.

[Not less than six examples of this type to be used.]

<i>Division</i> —	3)9	4)32	6)36	7)28	Time, 3 seconds.
					3rd Class, 6 right.
	9)9	3)21	6)48	5)10	4th Class 12 right

[Not less than thirty examples of this type to be used.]

4)55425	7)65982	Time 1 minute.
		4th Class, 1 right.
2)58748	5)41780	5th Class, 2 right.
		6th Class, 3 right.

		Time, 2 minutes.
21)441	31)961	4th Class, 4 right.
		5th Class, 7 right.
51)1173	71)1561	6th Class, 9 right.

[From sixteen to twenty such examples should be used, depending on the class.]

67)32763	48)28464	Time, 3 minutes.
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97)36084	59)29382	6th Class, 2 right.
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[Six examples to be set.]

Speed competitions may be held, and records of speed tests kept for the class and for individual pupils.

#### *Diagnosis of Error.*

When an error has been made by any pupil, it is essential that the error be traced to its source. This means individual work, in the sense that each pupil should find out or have pointed out just what has been the cause of his error. It is not sufficient for the teacher to know what children are wrong; but the whole matter must be brought to the forefront of the child's consciousness.

In the solution of problems, errors may come in three ways—in the misunderstanding of the wording of the problem; in not reasoning out correctly; in making an error in the mechanical work. The first of these is a



question of English; and the wording should be as simple and direct as possible. If the reasoning has been false, and a wrong process employed, the situation needs to be more clearly visualised by the pupil. This is often helped by the use of some kind of apparatus or by diagrams; and the pupils should be encouraged to set out or to illustrate the situation for themselves, the teacher acting as guide when necessary. If the mechanical work has been at fault, again the error must be traced right to its source. This is best done by the pupil, if possible. He should be encouraged to go through his work, discover the error, and make the correction. If unable to do this unaided, the teacher should help. But the aim should be to allow no error to be passed over without correction.

It frequently happens that even the teacher has difficulty in tracing the source of error. Working aloud by the pupils will often reveal what is sought. When helping pupils, it is a sound principle to emphasise what is right, rather than what is wrong; as whatever receives emphasis will tend to be retained. It is important to "follow up" with examples of the type in which errors have been made, both in the same and succeeding lessons, as it is by such systematic "following up" that errors are most effectively eradicated.

*Order of Difficulty.*—As a result of an investigation carried out with 1,000 children in four (4) schools, the following represents the simple combinations in which most errors were made. These may not represent the order of difficulty for individual children, but the list is useful as indicating those combinations that deserve special attention.

<i>Addition.</i> —	7	9	9	8	5	7	7	5	6
	9	6	5	6	8	6	8	9	5
	—	—	—	—	—	—	—	—	—

The list shows that the number of children who made mistakes in  $5 + 9$  was not the same as for those who made mistakes in  $9 + 5$ . All combinations need to be drilled both ways.

<i>Subtraction.</i> —	15	9	16	15	15	1	11	13	6	11	5
	9	9	7	8	6	0	9	5	0	7	5
	—	—	—	—	—	—	—	—	—	—	—

In most cases of error,  $9 - 9$  was given as 9; similarly  $5 - 5$  as 5, &c. [See below.]

In the case of  $1 - 0$  the usual error was to put 0; similarly for  $6 - 0$ , &c.

See also below for errors made, for errors made in longer examples in subtraction:—

<i>Multiplication.</i> —		$4 \times 0$ ,	$7 \times 0$ , &c.	} [See also below.]
		$0 \times 5$ ,	$0 \times 6$ , &c.	
$8 \times 8$ ,	$7 \times 7$ ,	$7 \times 9$ ,	$3 \times 3$ ,	$9 \times 6$ ,
$5 \times 6$ ,	$9 \times 8$ ,	$5 \times 5$ ,	$6 \times 8$ ,	$4 \times 8$ ,
$4 \times 7$ ,	$4 \times 4$ ,	$4 \times 5$ .		

*Division.*—[For error with the zero, see below.]

$9 \overline{)9}$	$6 \overline{)6}$	$7 \overline{)56}$	$9 \overline{)81}$	$9 \overline{)36}$
$3 \overline{)27}$	$4 \overline{)4}$	$6 \overline{)48}$	$9 \overline{)63}$	$6 \overline{)42}$
$4 \overline{)32}$	$6 \overline{)18}$	$3 \overline{)24}$	$2 \overline{)18}$	$7 \overline{)63}$
$7 \overline{)49}$	$8 \overline{)24}$	$8 \overline{)72}$	$6 \overline{)36}$	$8 \overline{)64}$

The errors made in  $9 \overline{)9}$ ,  $6 \overline{)6}$ ,  $4 \overline{)4}$ , &c., were all of the same type, viz., 9, 6, 4, respectively.



On analysis there are many errors *others than those due to want of knowledge of the tables*. The following list is more suggestive than exhaustive, but contains some of the more common types.

*Addition*.—(1) Inversion. The figures are misplaced, 24 being treated as if it were 42, the 2 being written down, and the 4 carried. This type of error occurs in all the operations. In the "order of difficulty" examples above, in the list for division, the example  $9 \overline{)81}$  really gave rise to many errors of this type, as many who were wrong put 2 as the quotient.

(2) The carrying figure is omitted.

(3) Errors of attraction. A figure is written down because the pupil's eye is attracted by that figure in the bottom line.

This type of error may occur in any of the operations.

*Subtraction*.—(1) The greatest number of errors are connected with the zero. [See also above.] When a zero is in the top line, as in the following example, two kinds of error are frequently made,—either to put 7 or 0 in the first place.

$$560$$

$$177$$

(2) When the top and bottom figures are the same, the figure is often put down. (Error of attraction.)

$$349$$

$$189$$

$$\text{---}$$

$$169$$

(3) In that example, not an uncommon mistake is to find 10 for the first place, the result appearing as follows:—

$$349$$

$$189$$

$$\text{---}$$

$$1510$$

The process has been:—9 from 19 = 10

9 " 14 = 5

2 " 3 = 1

*Multiplication*.—(1) The zero is again the source of many of the errors. They usually occur in one of the following ways:—

(a) By ignoring it altogether;

(b) By treating it in a multiplier as if it were unity, thus:

$$734$$

$$70$$

$$\text{---}$$

$$734$$

$$5138$$

$$\text{---}$$

$$52114$$

Sometimes the first digit only is treated in this way; for example, the 4 is written down, but not the other digits in that line.

(2) Errors of attraction and inversion.—See above under *Addition* and *Subtraction*.

(3) Errors in place value sometimes occur because figures are not put directly under one another.



*Division.*—(1) When a zero should appear in the quotient it is frequently omitted, in both short and long division. In long division, the liability to do this is decreased by writing the quotient over the dividend, the quotient figures to be put in their correct place.

$$\begin{array}{r} 603 \\ 41 \overline{)24723} \\ \underline{246} \phantom{00} \\ 123 \\ \underline{123} \phantom{00} \end{array}$$

(2) Remainders are sometimes neglected or wrongly used in short division.

(3) In long division, the figure in the quotient is sometimes either too small or too large. The instructions in the syllabus about multiplying the divisor by the figure in the quotient should be followed. Further, the children should be taught to always apply a test to discover if the quotient figure is too small or too large.

### *Habit Formation.*

In arithmetic, as in other subjects, much depends upon the forming of right habits. By suitable drill the pupil can be trained to perform the four simple operations almost without conscious effort, just as he walks. When ever a new process is to be learned, brisk practice for a few minutes at a time is necessary until the required habituation is formed.

Among the habituations to be established in arithmetic are:—

Counting, first by ones, then by twos and larger groups, especially tens;

The addition and subtraction combinations;

Adding up a column of figures without counting and without hesitation;

The multiplication and division tables;

The pence and shillings tables;

The making of clear, neat figures and the orderly setting out of all written work.

Undesirable habits are to be prevented by strict supervision. Among these are:—

Working addition sums by counting of fingers, &c. This often results from setting children to work sums involving combinations which have not been memorised;

Writing the carried number in any of the four operations;

Slackness in setting to work.

### *Reasoning in Arithmetic.*

A distinction needs to be made between the "reasoning out" of a problem on the one hand and the "rationalizing" of a mechanical process on the other. It is very necessary that children be trained in the former. For example, in teaching simple interest each stage should be reasoned out so



that the meaning of each step may be understood. But the rationalizing of a mechanical process is essentially different from this. It would mean, for example, giving the reasons for the method employed in subtraction or long division. In general such rationalizing is quite unnecessary, more especially in the lower classes. It may at times be advantageous in the higher classes of the primary school. It is probable, for example, that the work in decimals will be helped by a review of the idea of place value and by rationalizing the processes in the light of this review.

Pupils will therefore be taught the meaning of the fundamental operations, but in actual calculation will use them merely as tools for solving problems. To the ordinary person it is of no moment to understand the reason for the various steps in carrying out the operation of subtraction, but it is of great moment that he should understand the significance of the process, know when a problem demands its use, and then be able quickly and accurately to carry it out.

Remembering the twofold aim of the teaching of arithmetic—(a) to lead the pupils to reason out certain simple types of problems; (b) to teach them to perform the necessary mechanical work involved—teachers must recognise the importance of the former part of the aim, as well as of the latter part. The former must receive its due share of time and attention. In this connection it is recommended that, especially in the higher classes, whole lessons may even be devoted to this exclusively. Problems of the types to be considered might be given on the blackboard, or better, taken from a suitable text-book, and the class required (i) to set down what is given; (ii) to state what is required. While the procedure may be varied, in general the whole class should be required to write down their work, so that each pupil's work can be examined. Another valuable exercise, which may, or may not, be combined with the above, is to ask pupils to set down the statement of the solution ready for calculation, but without asking for the calculation to be performed.

For example, if the problem is, "Find the cost of asphaltting a footpath 60 ft. long and 4 ft. wide at 3s. per square yard," the pupils will write—

$$\text{Cost} = \left( \frac{60 \times 4}{9} \times 3 \right) \text{ shillings.}$$

In one lesson period many problems can be treated in this way.

#### *Source of Problems.*

The most suitable problems are those which arise out of actual situations. The school activities offer a rich field from which arithmetical problems may be drawn; the enrolment of boys and girls in the various classes, the attendance at sports, clubs and matches, picnics, concerts, and other entertainments, garden work, manual work, including needlework, the library, the school bank, the school consumption of water or gas or electricity, the assessment of premises for shire or municipal rates, may all be turned to account. The preparation of the annual requisition involves the counting of material, the exercise of judgment as to what is serviceable or unserviceable, the estimate of requirements, and the calculation of cost; and in all these the pupils can take part. Building work, fencing, asphaltting, will supply a great variety of problems. So also will local industries, transport, and civic affairs.



Many problems arising out of these activities should be framed by the pupils themselves ; the ability to discover or to recognise real problems may be as valuable as the ability to solve them. Many good problems for the arithmetic lesson may be drawn from geography, or from such publications as the *Commonwealth Statistical Digest*, the *New South Wales Statesman's Year Book*, the railway time-table, the book of freights, or the newspaper.

### *Activity of the Pupils.*

At every point the teacher should be on the watch for opportunities of letting pupils do things for themselves, of encouraging them to exercise initiative either in framing exercises or in the method of solving them. The children should be encouraged to ask questions as well as to answer them, to collect data and suggest ways of dealing with them.

Sets of exercises from text-books or on cards might also give scope for individual independent activity. These can profitably be used by pupils who have satisfactorily done the work set for the class, the permission to do such extra work from text-books being regarded as an honour.

While the blackboard should be freely used, it should not be indiscriminately used. An example is worked on the blackboard if a section of the class needs further explanation in connection with the working of the example. To work every example on the blackboard as a matter of course is quite unjustifiable. At the least, those pupils who have worked the given example correctly, should be given other work to do ; and even the pupils who may have made an error which they have discovered for themselves, may be similarly treated.

### *Summary.*

The general principles embodied in the syllabus are these—

- Basing the instruction upon the interests and activities of the pupils both in school and out of school.
- Limitation of the subject-matter to what is practical and useful in everyday life.
- A thorough mastery, at each stage, of the fundamental operations, so as to ensure accuracy and speed ; but the mechanical processes should be looked upon by the children as means to a practical end.
- Use of concrete aids and illustrations.
- Stress on oral rather than written arithmetic, especially in the lower classes.
- Self-activity of the pupils in the selection and use of material, with exercise of initiative in framing problems.
- Correlation with other subjects, such as geography and manual work.
- Freedom as to use of material and methods.

So long as the leading principles of the mathematics syllabus are observed and its essential requirements fulfilled, the widest scope is given for the individuality and initiative of teachers and for enterprise in adapting the instruction to local conditions, due regard being paid to the need for co-ordination in schools with more than one teacher.



## ARITHMETIC.

## Syllabus of Work for the Infants' School.

## FIRST CLASS.

The groundwork of arithmetic in the first class is arranged so that children may acquire good working notions of small numbers through actual experience in the use of things. No formal work is at first required, but it is expected that opportunity and material will be provided by which the children will recognise and use the smaller numbers, and later learn to write the symbols representing them. In the early steps the method of learning will be entirely informal and incidental to the natural activities of home and school life, and will not be stressed as a separate school subject.

*Counting—*

To learn the succession of the number names, at first to 10, and later to higher numbers as occasion requires. •

The first exercise is counting. It should be learned by a touch-and-say method supplemented by do-and-say, thus preserving the pleasure and rhythm of the exercise while individualising each successive number as the name is given.

The coincidence of the touching and saying is most important in order that the true nature of counting—the one-to-one correspondence—be kept in view. Children often accelerate the rate of speech so that the number names are said more quickly than the objects are touched, and the sense of quantity is lost.

Speech and action should keep together.

*Suggested Exercises—*

Counting the circle or class.

Marking the Calendar, and numbering the school days in the week.

Skiping, stepping, clapping, tapping, bouncing and tossing the ball, or performing any other rhythmic movement while counting. Bead threading; bead, stick and tablet laying, sorting shells, seeds, beads, and other things in colours, shapes and sizes, then counting the heaps. Telling at sight the number of small groups of things held in the teacher's hand, proving the number by counting.

Counting exercises in class are more or less of a social character in which the interest and activity are shared by all. Alternative exercises of an individual kind, more reposeful in effect, but still of a motor type, should be given also. The threading, laying and sorting exercises are useful here. Beads, sticks, tablets, seeds, shells, grain, and other things may be collected and used.

After children have become fairly familiar with the number names in their proper succession memory tests may be given. When the child hesitates or makes a mistake he should revert to the counting of things until the memory is more strengthened and he can count without them. It is advisable for the



teacher to write up the number counted each morning in order that the link between the spoken and written result may be established, and an indirect preparation for the writing of the symbols be made. The daily black-board record is of great interest to the children.

Material used for the purpose of teaching number should be well organized, so that it may, in the first place, be handled expeditiously, taken out and put away without waste of time; and in the second place it should as far as possible be "self-corrective." A self-corrective exercise is one in which any mistake made by the child is at once apparent. It presupposes that there is a definite rule by which the child will be guided in his work, and that he will be able to see and correct his own errors. The main reason for the provision of such material is that a child may be helped to help himself.

Badly organized material cannot be helpful in this way.

Number work through the didactic apparatus of the Montessori Method.

Perceptions of number and measurements through :—

- (a) The Long Stair—Comparisons of lengths. Comparison of number by counting the sections of each rod and setting out the stair correctly.
- (b) The Broad Stair—Comparison of breadth and thickness. The number ten is exemplified in the number of steps.
- (c) The Tower—Comparison of height. The number ten exemplified in the number of parts.

Individual exercises in associating number, name, and quantity should be given :—

- (a) Teacher suggesting the number, the child to show the quantity it represents.

The Long Stair, Broad Stair, and Tower of the Montessori Method are excellent examples of self-corrective apparatus with which a child may employ himself profitably without the constant direction of the teacher. In addition to the perceptions and the proper language of measurement which he may acquire by their use the number ten is exemplified in each. The *Long Stair* is however, the material intended to be used for number work. From the simple comparison of lengths, the child's attention is drawn to the counting of the contrasting sections of each rod. Each rod represents a whole which is indivisible. This clarifies the idea of the whole and its parts, which may be counted but not separated. Alternating the counting exercises by means of the long stair with others in which separate things are used should give useful ideas on separate "ones" and "wholes."

As the emphasis is to be placed on quantity not on figuring, it is important that children shall have good working notions of small numbers and their values before the symbols are introduced. Additional exercises to those already mentioned are necessary to make this foundation work



- (b) Child to set out and arrange objects freely, then tell the number.
- (c) To use the number boxes of the Montessori Method or similar apparatus for further work of the kind.

### *The Symbols—*

To recognise at sight, to know the value, and to write the figures to ten.

sure. Sometimes the teacher should give the number and require the child to show the quantity, and sometimes she should let the child set out any number of things and tell the quantity, thus alternating the exercise from quantity to name, and name to quantity till the two are thoroughly associated.

The foundation work in counting, and in associating the number names with the quantity for which they stand having been successfully covered, the symbols should be taught—first at sight, then by writing movement. Attention should be paid to good form and correct process. Some form of the tracing exercise should be used, and the children should not be hurried. They may now assist in making the figures for the blackboard record of the counting exercise, and may use the written symbol instead of the spoken number wherever it can be usefully substituted. The habit of expressing in writing the number used in working will begin here. Exercises on the Long Stair will be continued, and the movable figures placed against the rods as they are laid. The child may then count to ten by naming the figures as well as by touching the sections.

### *Coins, weights, measures—*

$\frac{1}{2}$ d., 1d., 3d., 6d., 1/- at sight.

"Shop" plays in which lb.,  $\frac{1}{2}$  lb.,  $\frac{1}{4}$  lb., doz.,  $\frac{1}{2}$  doz. may be used.

Children should learn to recognise the common coins. There are many useful and interesting ways of doing this without any undue pressure. All children love to play shop, to dramatize the Shop Keeper and the Customer, to weigh and measure goods and tie up the parcels. Real or make-believe commodities and money may be used.

Recognition of the coins and a little incidental work with them may profitably be done on the Banking days. The dramatization of the work of the home suppliers—grocer, milkman, greengrocer, baker—and of the most familiar public servants—tram and railway guards, ferry ticket sellers and collectors,—will offer further opportunity for this kind of interesting work.



Number through games and other play activities.

A great deal of useful work in number may be done through games, stories, songs, and finger plays, and these avenues of interest should be largely employed. But it should be clearly understood that play is primarily undertaken for the interest and pleasure of the game and not for the purpose of disguising a task to be learned. The forms of play in which a number motive is prominent are generally such as appeal to the child's sense of rhythm, fun, desire to compete, and so on; but it is the game itself that makes the first appeal and not the number motive. In giving these plays then, teachers should be careful not to stress the number at the expense of the play to which it is incidental.

The attached list of plays and games is merely suggestive. Many others, both original and standardised, will suggest themselves to thoughtful teachers, or may be found in the various kindergarten books on this subject.

*Games—*

The Muffin Man. Musical Chairs. Tug of War Games. The Needle's Eye. Oranges and Lemons. Ninepin Game. Ball games of various kinds. Skipping, marbles. Eggs in the bush. Twos and Threes. Race Games. Throwing Games, as bean bags in the basket.

*Finger Plays—*

Here is a Bee Hive. The Merry Little Men. Five Little Mice. Mrs. Pussy, Sleek and Fat. The Finger Family; and many others to be found in the Fröbel Mother Play and its adaptations by well-known authors.

*Jingles—*

One, two, buckle my Shoe. Two, four, six, eight, Mary at the Cottage Gate; and others of the same kind.

*Rhymes and Stories—*

Sing-a-song-of-sixpence. Baa Baa Black Sheep. Three Little Pigs. Three Bears. Cinderella. Snowdrop, and many others.



*Counting changed to addition—*

New forms of counting by which the idea and the language of the exercise are changed.

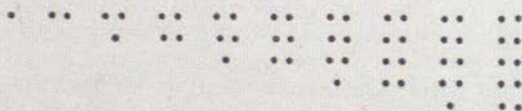
- (1) One and one make two, and one more makes three, and one more make four, and so on as far as ten.
- (2) Select a number and let the children *add on* by ones or twos, thus ;— start from 4 ; 4 and one more make 5 ; 5 and one more make 6, &c., as far as ten. Start from 1, 2, or 3, and add on by twos.

Other exercises of a similar nature.

Arrange counters in alternate groups of even and odd numbers to ten. Name the even groups 2, 6, 8, 10 ; name the odd groups 1, 3, 5, 7, 9. Change the language of mere naming to that of adding. Similar exercises with groups with other than 2.

The first exercises in addition are those which change the idea and the language of counting to adding. For example, to touch the objects and say one, two, three, four, is mere enumeration or counting ; to say as they are touched one and one more make two, two and one more make three, three and one more make four, is addition by which the child is consciously increasing the magnitude. Although the exercise is just as simple as that of counting it is an advance in idea, securing a good foundation for the later work in addition by having the children realise the meaning of the operation.

In the exercise on Odds and Evens the material is arranged in definite order as :—



This arrangement is not arbitrary. Any other that will give an equally clear idea of the alternation of the odd and even numbers and of their numerical progression will be found suitable.

Further exercises on the Long Stair.

Addition exercises in the first 10-space—

- (a) Have the child select at sight any two rods, say, the "one" rod and the "four" ; prove the correctness of the choice by counting ; place *end to end*, add on *after* one, till the total is found. Let the child place or write the figures, or record the operation as—

$$\begin{array}{r} 1 \\ 4 \\ \hline 5 \end{array}$$

The rods of the Long Stair being familiar through comparison of length and counting the sections, this apparatus will afford further opportunity for learning the combinations within the first and second ten — spaces.

The exercises set out herewith are of a didactic character. It is intended that the child should, through oft-repeated experiences of a uniform type, acquire a certain principle which he may use in adding, or comparing the values of any two simple numbers.



(b) Select the "ten" rod, place *beside* it any other selected rod with the colours matching, prove the correctness of the choice by counting. Compare them, counting from the smaller number to the larger. Say how many more must be added to the shorter rod to complete the ten. Place the numerals or record on the blackboard.

(c) Passing beyond the first ten—Select the "ten" rod and place *end to end* with it any other rod. Count *from* the ten. State the value as "ten five," and give the name as fifteen. Place the numeral card and let the children write.

Summary of work at the end of the First Year:—

To count by ones to 40.

To count by twos to 20.

To recognise at sight and to write the symbols for any numbers to 20.

To add or subtract any two numbers within the first 10 to state the answer concisely and to write it correctly.

Exercise, (b) is here given as complementary addition; it may also be given in the subtractive form as soon as the children are able to understand it.

Other material in alternation with the Long Stair may also be used. It is useful to have the children handle small groups of separate things as well as the indivisible wholes exemplified in the Long Stair.

The main point to be considered in the use of any such material is that it be well arranged so that the children understand exactly the right way of working with it, and have plenty of opportunity to use it freely and self-educatively.

#### General Notes.

In all the foregoing exercises it will be seen that the following steps in the learning process have been consistently kept in view:—

1. That a child should first learn by experience through sight, touch, and motor activity the simple number values in counting, adding and subtracting.
2. That he should express himself verbally and in action to show clearly what he means.
3. That he should, by degrees, record his work accurately in writing first by selecting and attaching the correct movable symbols, and second by writing them neatly.

Although it has been necessary to arrange the exercises herewith, in succession many of them are concurrent. In the Free Occupation period several different types of work of suitable standards of difficulty may be used at the same time by different children whose individual abilities will be known and provided for by the teacher.

It being quite understood that the work in the First Class is informal and incidents to other lines of interest in order that it



may develop along natural lines, it is hoped that teachers will show sufficient thought and skill in devising and organizing additional and alternative occupations to those mentioned here, to make the foundation work really effective.

#### *The Use of Counters.*

The use of counters may be easily abused; on the one hand a child may clear his perceptions, find motive for his work, and pleasure in an active-occupation; on the other, by a too prolonged use of them when the need has passed, he may miss the clearing and fixing of the ideas or information he has gained.

Apparatus of any kind is only of use to illustrate through motor activity some point the child would not otherwise understand. As soon as this is clear the aids should be dispensed with, and he should rely on his mental activity only.

Whatever aids may be employed in number work, it is best that the child should use them *freely* and, the *method once having been clearly taught, without the direction of the teacher*. Much of the futility of the concrete work in the past has been due to the over direction and misdirection of the children by the teacher in matters which they could quite readily do for themselves.

The work of the first year, as summarised, is purposely given in ungraded form.

#### SECOND CLASS.

The initial steps in number in this class will be the collection, systematisation, and memorization of the number facts learned in First Class.

The discovery of new facts and processes will still be made by means of suitable apparatus, and the need for a copious supply of well arranged occupations be found to be as great as heretofore. Some children make rapid progress and require only a very limited amount of concrete work, others only absorb the idea slowly through many repetitions in its use. These two extremes of ability and the intermediate types must all be provided for.



*Written Arithmetic—*

Written expression of work done through the eye, ear and hand.

Records of numbers used in games and other activities. Written answers to oral and sight questions in the four simple operations.

Range of Work for the Second Year :—

*Counting—*

To count by ones, twos, fives and tens to 100.

To mark the ten-spaces to 100, and to count the numbers between them and from one given ten to another as from 20 to 40; 40 to 60; 70 to 100.

To count from any given number within 100.

To count by small groups as preparatory work in tables.

To start from a given number and count on by small groups.

*Read, know value, and write in figures—*

All numbers to 100.

Children to be able to read, know the value and write any number within this range.

Free occupation in composing and analysing numbers to 100 :—

Montessori and other apparatus; the bead bars; individual ball frames; the "100" chain; the frame for movable

Written arithmetic as commonly understood, that is, the mechanical working of sums on slates or paper is postponed, the emphasis being placed on the mental work resulting from the various sources of discovery in the values and relationships of number.

The main objective is then to secure self-reliant, accurate, and rapid work in the use of the numbers.

Counting is still the fundamental operation. At the end of the second year children will be expected to count readily and accurately in any of the exercises shown. In regard to the methods of learning those advocated in first class will be continued with more insistence on memory work and an advance in the range of number.

It is important that the marking of the ten-spaces and counting between them should be well practised. Children should be able to complete the number to the next ten from any given number. Counting by tens to 100 is the first step in the successful mastery of this exercise.

The numbers being known orally by means of the counting exercises, and by other means, children should be able to describe such a number as 35 by its value or by its name as three-tens-five or as thirty-five. Plenty of practice in reading numbers from the blackboard or chart should be given, using both forms of expression given above. These should be alternated with exercises in writing down numbers notated in both ways as "Write down three-tens-five; four-tens one; five-tens; tell the names of those numbers."

Children may help themselves very greatly in their numeration and notation by working independently in composing and analysing numbers by means of prepared material. A great deal of useful information as to the type and use of material for this purpose is given in the original and advanced books on



numbers with boxes of cards for use with it; cards showing even "tens" accompanied by cards showing single numbers, the latter to be superimposed over the zero.

Collection of numbers cut from calendars and advertising matter for arrangement in consecutive or other systematic order.

the Montessori method. With the exception of the ball frames all may be made readily by the teacher, and any effort in this direction is amply repaid by the ease and rapidity with which children learn to make, to read, and to write numbers.

TABLE of all numbers to 100, for numeration exercises, from Blackboard or Chart.

1	2	3	4	5	6	7	8	9	0
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

#### Exercises—

1. Construct the table by line or column at suitable intervals while the numbers are being learned.

2. Let children read across in lines practising the succession of numbers between the ten spaces, and being able to complete any given number to the next ten.

3. Let children read downwards in columns from any given number in the top line advancing into higher tens as 4, 14, 24, 34, 44, &c.

4. Let children read upwards in column from the highest number to the lowest, decreasing by tens as 94, 84, 74, 64, 54, &c., to 4.

5. Let children read diagonally from any given number in the top line, increasing by eevens, as 1, 12, 23, 34, 45, &c.

After sufficient practice has been given, the numbers of two places may be gradually collected in systematic form as the 100 table and used for frequent practice in reading from the blackboard or chart. The exercises in numeration and, indeed, in addition, which may be performed with the 100 table are very extensive and will help to fix what has been learned previously.

The 100-table, as shown, should be constructed week by week, or at any suitable intervals during the course, and placed on the blackboard or chart for reading exercises. It will be noted that many interesting generalisations may be reached by children seeing and frequently using the whole set of numbers in a compact form. By bringing an intelligent curiosity to bear on the matter they will find—

- (1). That when ten is added to any number only the tens-figure is changed, the singles remaining the same.
- (2). That when eleven is added both the tens and singles are increased by one, and
- (3). That the singles being repeated in proper order from one to nine between the ten spaces, each time the ten is reached the number passes over into the next ten.

These rules will come to the children quite easily through interesting and lively practice on familiar numbers, and help to form a solid foundation for intelligent work in higher numbers later on.



Many other exercises may be based on the 100-table

Much emphasis is here placed on the reading at sight of the numbers the children have been learning by many other means. Writing them from notation is, of course, also required.

In written exercises attention should be paid to form and neatness in making the figures, and in putting down the numbers in column or line as occasion requires.

*Addition and Subtraction—*

Combination of numbers to 20 to be thoroughly known—

- (a) as addition results ;
- (b) as subtraction results.

The simple facts in addition and subtraction thus memorised should be applied to the working of higher numbers in these operations.

*Column and Line Addition—*

Of more than two numbers should be frequently practised collectively and individually, as—

3  
2  
7  
0  
—

Subtraction exercises of corresponding difficulty should be given.

Written answers to oral and sight questions should be promptly and accurately written with due regard to neatness and good form in making the figures.

While at the end of the second year, it is required that the memorization of the foundational facts in addition and subtraction shall be complete, no specific arrangement of the facts themselves or of the method of teaching them is directly advocated. It is, however, required that in the first instance the discovery of the facts shall be freely and systematically practised until thorough familiarity with them results. Many teachers will prefer to arrange the numbers in consecutive addition tables developed from the counting series ; others, again, prefer the shorter arrangement in groups or " families." They will grade the work accordingly. Both forms are shown on page 76.

Frequent practice in oral and sight work is necessary, the impressions gained through these exercises being strengthened by writing down the results as found.

In adding continuously in columns or line the process is, at first, slow, requiring full statement—as in (3 2 6), 3 and 2 make 5 ; 5 and 6 make 11. When the idea has become clarified by frequent practice the full statement should be discontinued, and the results given quite briefly and disjunctively, as 5, 11. Written work should not be demanded until children have acquired facility in adding in this way. Practice in adding by equal groups to a given number, should alternate with the addition of miscellaneous groups, adding by tens, and similar exercises.



Addition of equal groups,  
as—

2  
2  
2  
2  
2  
2

Adding on equal groups to  
a given number—

4, 5, 5, 5  
1, 3, 3, 3  
2, 6, 6, 6

Adding on by tens—

1, 11, 21, 31, 41, &c.

The combinations to 20 being thoroughly known they may be applied in the addition of numbers passing into higher ten-spaces. Children should become familiarised with this exercise as a preparation for more advanced sums in addition and subtraction later.

Towards the second half of the second year it is expected that children will have gained sufficient facility in using the simple processes to enable them to work easily and independently from question cards in their own number books and to correct the answers. Such cards and books should be used for free exercises by the more advanced children only, those who have mastered the mental work sufficiently to make written work profitable.

All sums should be short, the progress of the children being estimated by the increased accuracy and rapidity with which the sums are worked. The main problem for the second class is how to do simple work rapidly and well.

### Addition Tables.

No. 1.—Addition Tables in consecutive order, corresponding to the counting series.

+1	+2	+3	+4	+5	+6	+7	+8	+9	10
1+1=2	1+2=3	1+3=4	1+4=5	1+5=6	1+6=7	1+7=8	1+8=9	1+9=10	1+10=11
2+1=3	2+2=4	2+3=5	2+4=6	2+5=7	2+6=8	2+7=9	2+8=10	2+9=11	2+10=12
3+1=4	3+2=5	3+3=6	3+4=7	3+5=8	3+6=9	3+7=10	3+8=11	3+9=12	3+10=13
4+1=5	4+2=6	4+3=7	4+4=8	4+5=9	4+6=10	4+7=11	4+8=12	4+9=13	4+10=14
5+1=6	5+2=7	5+3=8	5+4=9	5+5=10	5+6=11	5+7=12	5+8=13	5+9=14	5+10=15
6+1=7	6+2=8	6+3=9	6+4=10	6+5=11	6+6=12	6+7=13	6+8=14	6+9=15	6+10=16
7+1=8	7+2=9	7+3=10	7+4=11	7+5=12	7+6=13	7+7=14	7+8=15	7+9=16	7+10=17
8+1=9	8+2=10	8+3=11	8+4=12	8+5=13	8+6=14	8+7=15	8+8=16	8+9=17	8+10=18
9+1=10	9+2=11	9+3=12	9+4=13	9+5=14	9+6=15	9+7=16	9+8=17	9+9=18	9+10=19
10+1=11	10+2=12	10+3=13	10+4=14	10+5=15	10+6=16	10+7=17	10+8=18	10+9=19	10+10=20

### Exercises—

1. Let the children read or say over the tables downwards in columns.

2. Let children read or say across in lines.

3. Let children begin from any given number and add on in succession to any other given number (down or across).

For the benefit of those teachers who need some help in grading the difficulties to be overcome in learning the combinations to 20 three commonly accepted forms of the addition table are here shown.

No. 1 corresponds to the counting series. It is constructed by using as a foundation the series of numbers from 1 to 10, and by adding on to each of them ones, twos, threes, &c., in consecutive order to 10.

As the results thus tabulated are discovered during class or individual work they should be collected and written down with a view



4. Practise taking away one number from another in the same way.

5. Give rapid questions round the class to test the memory (oral work without the chart).

to constructing the table at some fitting time. It may then be the joint work of children and teacher to construct it piece by piece in accordance with the grading of the work done. When ready it should be used mainly for reading exercises, although the children should be able to say the tables without reading as a species of higher counting, or to give promptly the result of adding any two numbers in isolation from the rest of the table.

No. 2.—Addition families, showing same terminal figure in each set.

2	3	4	5	6
1+1=2	2+1=3	2+2=4	3+2=5	3+3=6
2+10=12	3+10=13	3+1=4	4+1=5	4+2=6
3+9=12	4+9=13	4+10=14	5+10=15	5+1=6
4+8=12	5+8=13	5+9=14	6+9=15	6+10=16
5+7=12	6+7=13	6+8=14	7+8=15	7+9=16
6+6=12		7+7=14		8+8=16
7	8	9	10	11
4+3=7	4+4=8	5+4=9	5+5=10	6+5=11
5+2=7	5+3=8	6+3=9	6+4=10	7+4=11
6+1=7	6+2=8	7+2=9	7+3=10	8+3=11
7+10=17	7+1=8	8+1=9	8+2=10	9+2=11
8+9=17	8+10=18	9+10=19	9+1=10	10+1=11
	9+9=18		10+10=20	

No. 3.—Showing analysis of groups in consecutive order from 2 to 20.

2	3	4	5	6
1+1=2	2+1=3	2+2=4	3+2=5	3+3=6
		3+1=4	4+1=5	4+2=6
				5+1=6
7	8	9	10	11
4+3=7	4+4=8	5+4=9	5+5=10	6+5=11
5+2=7	5+3=8	6+3=9	6+4=10	7+4=11
6+1=7	6+2=8	7+2=9	7+3=10	8+3=11
	7+1=8	8+1=9	8+2=10	9+2=11
			9+1=10	10+1=11
12	13	14	15	16
6+6=12	7+6=13	7+7=14	8+7=15	8+8=16
7+5=12	8+5=13	8+6=14	9+6=15	9+7=16
8+4=12	9+4=13	9+5=14	10+5=15	10+6=16
9+3=12	10+3=13	10+4=14		
10+2=12				
17	18	19	20	
9+8=17	9+9=18	10+9=19	10+10=20	
10+7=17	10+8=18			

Addition tables as shown in No. 2 and No. 3 are formed by analysis of each group into its combinations. These are arranged in sets or families. No. 2 shows both the analysis of the group and its application to the first ten. Thus all the numbers in any one set have the same terminal figure, *e.g.*, the "two" family shows 2 and 12 and all the numbers which make them; the other families are arranged similarly.

No. 3, on the other hand, shows analysis of numbers from 2 to 20 in consecutive order. Each set includes only the combinations within it, without application to any other number such as 10. This is the most common arrangement of the combinations to be learned.

In Nos. 2 and 3 fifty-five addition results are shown; in No. 1 there are 100. At first sight it may appear that No. 1 table is longer and more cumbersome than the two succeeding ones, but it must be remembered that it is only longer because it shows the full treatment of each number. Nos. 2 and 3 show only one form for each set. A child must be able to tell the result, no matter in what order the addends are placed so that each addition must be practised in two ways. The amount of work to be covered is the same, no matter what form is adopted. Teachers should consider carefully which type of table will be most readily accepted by the children, and having made the selection and provided the difficulties, train the children in useful habits of finding, recognising, and applying the needful foundational facts.



*Multiplication and Division—*

Tables to be learned:—  
2 times, 10 times, 5 times, 4 times, 3 times.

Symbols of operation  $\times$ ,  
 $\div$ ,  $=$ .

In the memorization of the Multiplication Table Division exercises must not be neglected. Each table should be practiced in both forms.

Application of the tables in sums and problems (oral and sight work from B.B. mainly).

As in addition and subtraction exercises the emphasis is placed on the ready use of the memorised results. The construction and practice of the Multiplication Table in both forms is, therefore, the first essential. The first steps towards this are the collection of pairs and addition by twos; addition of other small groups as threes, fives, fours, tens. Through this exercise the "times" idea should be gained, which having been accomplished, the symbolization of the results by collective and individual effort and the memorization of them naturally follow. When fairly familiar the facts of the table should be freely used in working sums from blackboard orally or at sight with written answers; or as the children acquire facility in multiplying and dividing, in books from question cards or blackboard. Material for free occupation in the construction of tables is easily made; squared cardboard on which may be shown the size of the group and the number of times it is repeated, with beads or other counters, and a tablet and pencil are all that is necessary. It is important that the facts should be expressed in writing as soon as they are discovered—( $3 \times 4 = 12$ ) or ( $8 \div 2 = 4$ ).

*Forms of Practice—*

1. To say the table in serial form either as Multiplication or Division.

2. To practise alternately results of multiplying odd and even numbers of the table (as  $3 \times 2$ ,  $5 \times 2$ ,  $7 \times 2$ ,  $9 \times 2$ , or  $2 \times 2$ ,  $4 \times 2$ ,  $6 \times 2$ , &c.).

3. To practise interchanging the factors as  $3 \times 4$ ,  $4 \times 3$ ,  $5 \times 6$ ,  $6 \times 5$ , &c.

4. To practise the double and the half; the four times and the quarter.

5. To use the facts of the table in easy problems.

*Fractions—*

- $\frac{1}{4}$  (a) as applied to things.
- (b) as applied to measurement of size or value.
- (c) as applied to numbers.

As facility in changing from the Multiplication to the Division form is gained, more attention should be centred on this part of the work. While the tables are being mastered all Division exercises will be simply based on the facts as learned in the table, no remainders being required. The new step of dividing easy numbers and showing remainders may then be introduced—still within the range of the tables known.

Recognition of fractional parts should grow out of practical exercises in dividing, weighing, measuring things; and in the relation to number, out of the practice in doubling and halving.



*Coins—*

Halfpenny, Penny, Threepence, Sixpence, One Shilling, Two Shillings.

As in first class the coins to be recognised and used in easy shopping problems, and other experiences of daily life are those with which young children are likely to be most familiar. Giving change demands some attention and therefore the coins to be taught should be used in relation to each other and practically illustrated. As many of the "shopping" problems will involve the knowledge and use of "dozen," that quantity should be taught along with the money values. In centres where the school bank is in active operation the collection, changing, and entering of the bank money is a valuable motive in teaching the recognition of the coins.

*Measurement—*

- (a) The foot ; the inch.
- (b) The hour ; half-hour, and quarter-hour. Divisions of the clock face.
- (c) Larger measurements of time as day, week, month, with the writing of dates. (Through practical work in keeping the calendar.)

The foot-rule or tape measure may be used for measurement of length, breadth, and height ; the clock face for measurement of time ; the calendar for larger measurements of time.

It is not intended that the treatment should be formal ; each one of the measurements set down may be motivated by interesting school activities. Measurement by means of foot-rule or tape measure may be co-ordinated with the handwork, the physical growth of the children, and other vital matters.

Measurement of the hours is the first step in learning to tell the time and that may be linked up with the ringing of the school bell ; while the marking of the calendar shows the changes of the season and correlates well with all Nature Study, and with the passage of time till promotions are coming.

These motives are only suggestive ; they will necessarily vary with the vital interests in individual schools.

*Form—*

Recognition and naming of the more common solids and planes previously used in Kindergarten and First Class—Cube, Sphere, Cylinder ; square and other rectangles, circle, triangles

It is not intended that there shall be any formal analysis of these shapes into lines and angles. They will be recognised by their forms and named accordingly, whether as actual things made of wood or other material or pictured shapes in mass thick outline or thin outline. Comparison with the ordinary things in the school and home environment



is a natural result of the interest displayed in the forms themselves, and will be made use of by the thoughtful teacher in a thoughtful way.

Some of the forms mentioned will receive further treatment in the handwork lessons.

*General Note.*

On entry to the Primary School at the age of  $8\frac{1}{2}$  years or thereabouts, children are expected to have an intelligent grasp of simple number operations, and a complete mastery of the fundamental facts as set out in the syllabus for second class.

THIRD CLASS.

As in Second Class, the final objective is the complete mastery of the "Tools of operation"—the quick recognition of numbers at sight with knowledge of their composition and meaning, the power to use readily the memorized results in the various tables, and to solve practical problems in the use of money and the various forms of measurement. The range of work in each of these forms being limited, it is expected that it will be thoroughly done.

*Numeration and Notation—*

Revision of numbers to 100.

To learn to read, write, and use numbers to 1,000—

(a) Even hundreds, as 200, 300, to 1,000.

(b) Numbers showing hundreds and an exact number of tens, as 150, 230, &c., to 1,000.

(c) Numbers showing figures in three places, as 125, 469, &c., to 999.

(d) Numbers apt to be confusing to beginners, as 101, 212, 555, 990.

In learning these numbers children should be provided with the means to work independently in composing, reading, and writing them. Some such work in free occupation, as suggested in the previous classes, should be arranged (a) by the use of movable numerals in properly constructed frames, and some form of illustrative counting material to show the meaning; (b) by the construction and use of a table showing all numbers between 100 and 1,000 as formerly used with regard to numbers of two places; (c) by frequent practice in reading and writing numbers of three places.

*Counting—*

1. By groups (any size) to 100.

2. By equal groups, from any given number to 100.

3. By tens to 100; by hundreds to 1,000.

4. By tens within any of the hundred-spaces, as 100, 110, 120, 130 to 200.

The counting exercise in its various forms should be retained. Counting by groups should be extended and practised in all forms of this exercise as—

(a) Commencing with a whole group and counting on, 9, 18, 27, 36, &c., to 99.

(b) Commencing from part of a group and counting on, as 3, 12, 21, 30, 39, 48, &c., within 100.



By tens from any number as 400, 410, 420, &c.; 670, 680, 690, 700, &c.

(c) Counting by tens and hundreds should be extended to cover all the main groups to 1,000.

In the first exercises in counting by the more difficult groups, as 6, 7, 8, 9, also in showing the hundreds spaces to 1,000, it may be necessary to make use of objects in order to present these new steps clearly; but as soon as the idea has been gained, the use of objects should be discontinued and greater mental effort demanded.

*Addition—*

Revision of addition combinations within 20.

Application of these in extended addition.

The symbols  $+$ ,  $=$

Application of the combinations within 20, to higher addition, should be made in four stages—

- (a) Showing results less than 10, as  $3 + 5$ ,  $13 + 5$ ,  $23 + 5$  within 100.
- (b) Results completing 10, as  $6 + 4$ ,  $16 + 4$ ,  $24 + 6$ , &c., to 100.
- (c) Results greater than 10, as  $8 + 7$ ,  $18 + 7$ ,  $27 + 8$ , &c., within 100.
- (d) Results passing over more than one ten, as  $18 + 17$ ,  $26 + 24$ ,  $23 + 35$ , &c., within 100, as sight work from blackboard

Sets of two double numbers should be frequently used. In rapid work of this kind it will be found very useful to add the tens first as giving a more comprehensive survey of the numbers to be added, and a preliminary approximation of the answer,  $20 + 40$ , should immediately suggest 60;  $27 + 13$  suggests 30, with something to be added from the singles. As the power to add rapidly at sight increases, the range of numbers in sets of two may be extended to the third place in easy examples, as  $300 + 500$ ,  $240 + 60$ ,  $125 + 225$ .

*Continuous Addition—*

- (a) Single columns of five addends.
- (b) Double columns of four addends.

<i>a</i>	<i>b</i>
6	24
4	35
9	78
2	23
7	—
—	—

Addition of more than two numbers to be given in column. The adding may be done both from the top to the bottom, and from the bottom to the top, in order to give experience in using the various sets of combinations thus required. In examples such as *b* on margin, the numbers are to be added one column at a time, in the usual way.



*Subtraction—*

Revise the work done previously with numbers to 20.

Subtraction exercises to correspond in difficulty to those in addition.

Symbols  $-$ ,  $=$

*Types of Exercise—*

1. Without carrying, as (a)  
 $18 - 3$ ,  $37 - 5$ ,  $89 - 9$ , (b)  
 $18 - 11$ ,  $46 - 42$ ,  $98 - 91$ .  
 (c) subtracting tens and  
 singles, as  $54 - 31$ ,  $36 - 24$ .
2. Using Zero—  
 (a) Without carrying,  
 $54 - 30$ .  
 (b) With carrying,  $60 - 24$ .
3. Two places, any numbers  
 $71 - 19$ ,  $84 - 7$ ,  $31 - 22$ .
4. Three places, as  $141 - 92$ ,  
 $745 - 296$ ,  $400 - 119$ ,  $401 - 57$ ,  
 $100 - 55$ .

*Multiplication and Division—*

*Tables*, to  $12 \times 12$ .

- (a) as Multiplication.
- (b) as Division.

Memorization and Use.

*Examples and Problems—*

Multiplication.

Application of the facts of the table in examples and problems involving the use of numbers of—

- (a) two places, as  $75 \times 5$ .
- (b) three places, as  $476 \times 8$ .

Single multipliers only are used—10, 11, and 12 being considered single multipliers and used as in the table.

*Division—*

Exercises on numbers within the prescribed range of notation having results showing—

- (a) one figure in the quotient, no remainder.

The teacher might refer to the introduction,—“Reasoning in Arithmetic.”

The evidence available shows that the “equal additions” method leads on the whole to more accurate and more rapid work in subtraction than the method of decomposing the top line.

The teacher however may use that method which he finds he can apply most successfully.

Again, the necessity for frequent practice in tables is emphasized; children who have passed through the Infants’ School and have learned the principle of construction should need very little further work in this direction, but as each new table is introduced it should commence by a revision of the practice of adding by equal groups.

Variety in the form of drill by which the table is mastered is necessary.

Children should be encouraged to make for themselves a reference chart containing the complete set of tables from which they may practise individually. When the main point of the instruction has been given in class they may thus extend and perfect their knowledge by their own interest and effort. Valuable free work in reading, writing, repeating and applying the results as they are learned may thus be done.

(The reference chart as described above with suggested forms of exercise is shown hereafter.)

As in Second Class, the privilege of working freely and continuously in books is to be earned by those who make sufficient mental progress to enable them to work profitably in this way. When children work from



- (b) one figure in the quotient, with remainder.  
 (c) two figures in the quotient without remainder.  
 (d) two figures in the quotient with remainder.

The remainder should be expressed in proper fractional form—

$$\begin{array}{r} 5 \overline{) 16} \\ \underline{10} \\ 6 \\ 5 \overline{) 476} \\ \underline{45} \\ 26 \\ \underline{25} \\ 1 \end{array} \quad \begin{array}{r} 2 \overline{) 27} \\ \underline{13} \\ 13 \frac{1}{2} \end{array}$$

(Children are merely to be shown how to place the remainder above and the divisor below the line.)

*Multiplication Tables (Complete Sets).*

No. 1.—Showing tables in consecutive order as advised for pupils.

2	3	4	5	6	7
$2 \times 1 = 2$	$3 \times 1 = 3$	$4 \times 1 = 4$	$5 \times 1 = 5$	$6 \times 1 = 6$	$7 \times 1 = 7$
$2 \times 2 = 4$	$3 \times 2 = 6$	$4 \times 2 = 8$	$5 \times 2 = 10$	$6 \times 2 = 12$	$7 \times 2 = 14$
$2 \times 3 = 6$	$3 \times 3 = 9$	$4 \times 3 = 12$	$5 \times 3 = 15$	$6 \times 3 = 18$	$7 \times 3 = 21$
$2 \times 4 = 8$	$3 \times 4 = 12$	$4 \times 4 = 16$	$5 \times 4 = 20$	$6 \times 4 = 24$	$7 \times 4 = 28$
$2 \times 5 = 10$	$3 \times 5 = 15$	$4 \times 5 = 20$	$5 \times 5 = 25$	$6 \times 5 = 30$	$7 \times 5 = 35$
$2 \times 6 = 12$	$3 \times 6 = 18$	$4 \times 6 = 24$	$5 \times 6 = 30$	$6 \times 6 = 36$	$7 \times 6 = 42$
$2 \times 7 = 14$	$3 \times 7 = 21$	$4 \times 7 = 28$	$5 \times 7 = 35$	$6 \times 7 = 42$	$7 \times 7 = 49$
$2 \times 8 = 16$	$3 \times 8 = 24$	$4 \times 8 = 32$	$5 \times 8 = 40$	$6 \times 8 = 48$	$7 \times 8 = 56$
$2 \times 9 = 18$	$3 \times 9 = 27$	$4 \times 9 = 36$	$5 \times 9 = 45$	$6 \times 9 = 54$	$7 \times 9 = 63$
$2 \times 10 = 20$	$3 \times 10 = 30$	$4 \times 10 = 40$	$5 \times 10 = 50$	$6 \times 10 = 60$	$7 \times 10 = 70$
$2 \times 11 = 22$	$3 \times 11 = 33$	$4 \times 11 = 44$	$5 \times 11 = 55$	$6 \times 11 = 66$	$7 \times 11 = 77$
$2 \times 12 = 24$	$3 \times 12 = 36$	$4 \times 12 = 48$	$5 \times 12 = 60$	$6 \times 12 = 72$	$7 \times 12 = 84$

8	9	10	11	12
$8 \times 1 = 8$	$9 \times 1 = 9$	$10 \times 1 = 10$	$11 \times 1 = 11$	$12 \times 1 = 12$
$8 \times 2 = 16$	$9 \times 2 = 18$	$10 \times 2 = 20$	$11 \times 2 = 22$	$12 \times 2 = 24$
$8 \times 3 = 24$	$9 \times 3 = 27$	$10 \times 3 = 30$	$11 \times 3 = 33$	$12 \times 3 = 36$
$8 \times 4 = 32$	$9 \times 4 = 36$	$10 \times 4 = 40$	$11 \times 4 = 44$	$12 \times 4 = 48$
$8 \times 5 = 40$	$9 \times 5 = 45$	$10 \times 5 = 50$	$11 \times 5 = 55$	$12 \times 5 = 60$
$8 \times 6 = 48$	$9 \times 6 = 54$	$10 \times 6 = 60$	$11 \times 6 = 66$	$12 \times 6 = 72$
$8 \times 7 = 56$	$9 \times 7 = 63$	$10 \times 7 = 70$	$11 \times 7 = 77$	$12 \times 7 = 84$
$8 \times 8 = 64$	$9 \times 8 = 72$	$10 \times 8 = 80$	$11 \times 8 = 88$	$12 \times 8 = 96$
$8 \times 9 = 72$	$9 \times 9 = 81$	$10 \times 9 = 90$	$11 \times 9 = 99$	$12 \times 9 = 108$
$8 \times 10 = 80$	$9 \times 10 = 90$	$10 \times 10 = 100$	$11 \times 10 = 110$	$12 \times 10 = 120$
$8 \times 11 = 88$	$9 \times 11 = 99$	$10 \times 11 = 110$	$11 \times 11 = 121$	$12 \times 11 = 132$
$8 \times 12 = 96$	$9 \times 12 = 108$	$10 \times 12 = 120$	$11 \times 12 = 132$	$12 \times 12 = 144$

The collection and arrangement may be done by children during free occupation period, one table being written each day or week till the Reference Chart is complete.



*Types of Exercise on Tables.*

1. To read or say in columns.
2. To read across.
3. To read diagonally from  $2 \times 2$ , collect and memorise the squares of the successive numbers  $2 \times 2$ ,  $3 \times 3$ ,  $4 \times 4$ ,  $5 \times 5$ , &c., to  $12 \times 12$ .
4. To read or say and write the division form of each table.
5. To learn the odd and even numbers in each table.
6. To read alternately  $3 \times 1 = 3$ ,  $3 \times 3 = 9$ ,  $3 \times 5 = 15$ , or  $4 \times 2 = 8$ ,  $4 \times 4 = 16$ ,  $4 \times 6 = 24$ .
7. To read tables from bottom to top and right to left.

*Further work on the Multiplication Table—Factoring.*

Exercises for the Free Occupation period. To find factors, of numbers to 100, to distinguish between divisible and indivisible numbers.

1 -	21 3, 7	41 -
2 -	22 11, 2	42 6, 7, 3, 14
3 -	23 -	43 -
4 2	24 4, 6, 3, 8, 2, 12	44 4, 11
5 -	25 5	45 9, 5, 3, 15
6 2, 3	26 2, 13	46 2, 23
7 -	27 3, 9	47 -
8 2, 4	28 4, 7, 2, 14	48 4, 12, 6, 8, 3, 16
9 3	29 -	49 7
10 2, 5	30 3, 10, 6, 5, 2, 15	50 5, 10, 2, 25
11 -	31 -	51 3, 17
12 2, 6, 4, 3	32 4, 8, 2, 16	52 2, 26 4, 13
13 -	33 3, 11	53 -
14 2, 7	34 2, 17	54 6, 9, 3, 18
15 3, 5	35 7, 5	55 11, 5
16 2, 4, 8	36 6, 12, 4, 9, 2, 18	56 8, 7, 4, 14
17 -	37 -	57 3, 19
18 2, 9, 3, 6	38 2, 19	58 2, 29
19 -	39 3, 13	59 -
20 5, 4, 10, 2	40 2, 20, 4, 10, 8, 5	60 2, 3, 4, 5, 6, 10, 12, 15, 20, 30
61 -		81 9, 3, 27
62 2, 31		82 2, 41
63 7, 9, 3, 21		83 -
64 4, 16, 8		84 7, 12, 4, 21
65 5, 13		85 5, 17
66 2, 33, 3, 22, 11, 6		86 2, 43
67 -		87 3, 29
68 4, 17, 2, 34		88 2, 44, 8, 11
69 3, 23		89 -
70 7, 10, 5, 14		90 9, 10, 3, 30, 2, 45, 5, 18
71 -		91 7, 13
72 12, 6, 8, 9, 3, 24		92 2, 46, 4, 23
73 -		93 3, 31
74 2, 37		94 2, 47
75 5, 15, 3, 25		95 5, 19
76 2, 38, 4, 19		96 8, 12, 3, 32, 6, 16
77 11, 7		97 -
78 2, 39, 6, 13		98 2, 49, 7, 14
79 -		99 3, 33, 9, 11
80 4, 20, 10, 8, 5, 16		100 10, 5, 20, 25, 2, 50, 4



Results may be written thus:  $24 = 2 \times 12, 12 \times 2, 3 \times 8, 8 \times 3, 4 \times 6, 6 \times 4$ .

The elaboration of the table as shown by these charts is merely suggestive of the kind of work children may do for themselves when the class work is thorough.

*Coins—*

Recognition of the coins and notes in common use to £1.

*Relative Values—*

1. To be able to express in shillings and pence any number of pence to 100.

2. To be able to express in pounds and shillings any number of shillings to 100.

3. To be able to express in shillings any number of threepences or sixpences to 5s. and, inversely, any number of shillings to 5s. as threepences or sixpences.

*Use—*

1. To complete the 1s. from any given number of pence and half-pence.

2. To complete the £1 from any given number of shillings.

3. To give change out of 1s., 2s., 3s., 4s., 5s.

*Addition as—*

s.	d.	s.	d.	s.	d.
0	7½	...		2	6
7	6½	8	9	4	0
9	4	4	6	1	8
6	8½	...		3	9

using two denominations only; not more than 4 items.

*Bills, and Shopping Problems—*

Up to four items and finding the change from a larger sum, of two denominations only, as 10s., £1, £1 10s.

Exercises in the use of money table must not be large or intricate. The aim is rather to keep the work within the practical life experiences and activities of the children in home and school. These interests mainly concern the spending of small sums of money in providing for the individual wants of the child or the needs of the family. In the home, the provision of food, rent, clothing, boots, tram fares, amusements, and pocket money offers a large field for shopping or other problems; while in the school, the banking operations, provision of material for play and gardening, class excursions, class room comforts and decoration, replenishment of material lost or destroyed, offer occasions for practical knowledge of the use and value of money. In all the avenues of spending above enumerated, the sums required are small, and mostly of one or two denominations needing just so much knowledge of relative values as will enable children to exchange readily one denomination for another.



*Subtraction—*

Two denominations only to be used in correspondence with addition exercises.

s.	d.	s.	d.
5	6	1	0
2	10	0	$7\frac{1}{2}$

*Multiplication—*

1. A number of shillings or pence by multipliers 2 to 12.

2. A number of pence by multipliers 2 to 12, answer in shillings and pence.

3. Shillings and pence by multipliers 2 to 12.

4. Pence and halfpence by multipliers 2 to 12.

Small sums of money of two denominations only, are to be used.

*Fractions.—*

$\frac{1}{2}$	$\frac{1}{4}$	$\frac{1}{8}$	$\frac{1}{16}$	$\frac{1}{32}$	$\frac{1}{64}$
$\frac{1}{10}$	$\frac{1}{12}$	$\frac{1}{3}$	$\frac{1}{6}$	$\frac{1}{9}$	$\frac{1}{18}$

In correspondence with the range of work in tables and in short division.

(See notes on division.)

*Measurement of length.—*

Length. Yard, foot, inch,  $\frac{1}{2}$  inch, one denomination at a time.

Estimates of lengths and heights in feet and inches.

*Mensuration.—*

As for Second Class.

Recognition of common solids and planes—cube, sphere, cylinder, circle, various rectangles.

Drawing rectangles to measurement as needed in the various kinds of handwork for boys and girls.

*Time.—*

Telling the time by the clock, using half and quarter hours, and the five-minute divisions.

Reading the Calendar and giving day, month, year; writing the date.

*Weight.—*

Notion of 1 lb.,  $\frac{1}{2}$  lb., and  $\frac{1}{4}$  lb. by actual handling of these weights and experiments in weighing.

Estimate weights within these limits.

In subtracting one sum of money from another, or in giving change from the larger amount children should learn to employ both the subtractive method in which the answer stands for what is left, and the complementary method in which additions are made to the small sum to complete the larger. In playing shop, and other games requiring exchange of money, the latter method is preferable. Exercises in division of money, sharing problems, &c., are for oral use only, no formal written work in the division of money being required.

As in Second Class the work in fractions should at first be concrete as the division of an orange into equal parts, or cutting a length of string or wood into equal parts for certain set purposes; from the fractional division of objects it should pass to that of such units as £1, shilling, lb., foot, inch, hour, &c., and from that again to the fractioning of numbers. Thus children will have experience in three forms of fractional measurement, two of which are objective and the third abstract.

The fractional measures to be taught correspond to the working tables, and their application in division.

*General Note.*

The final objective to be kept in view is re-iterated. By the end of the third year the children should have acquired sufficient to enable them to work accurately and rapidly any of the operations set down for Third Class. Teachers should, therefore, aim at the perfect memorisation, and ready and intelligent use of the fundamental facts and use of the simple operations coming within this range.



FOURTH CLASS

In this class, speed in computative work will be increased. While in the Third Class all the addition results up to and including  $9 + 9$  (with the corresponding subtraction results), and the multiplication results up to  $9 \times 9$  will be memorised, in the Fourth Class the corresponding division results are to be emphasised, as also will the 12-times table, for use in money work. Further, the "problem" and application aspect of arithmetic is more marked than in the Third Class. The greater and greater emphasis on this aspect of the work is to be the feature for each succeeding class. In addition to problems suggested by a good text-book, much motivated work can be done, arising from the various school activities. (See introduction, "Source of Problems.")

*Revision of Previous Work.*

*Numeration and Notation.*

To six places. Special attention to be given to numbers with blank spaces, e.g., 100, 901.

*Addition.*

1. Single column to seven figures.
2. Four addends to three places.
3. Examples with "ragged ends" should receive attention, as :

$$\begin{array}{r} 48 \\ 907 \\ 3 \\ 69 \\ \hline \end{array}$$

*Subtraction.*

To four places. Special attention to examples containing zeros :

890	3004	5102	5040
200	68	3007	151
<hr style="width: 50px; border: 0.5px solid black;"/>	<hr style="width: 50px; border: 0.5px solid black;"/>	<hr style="width: 50px; border: 0.5px solid black;"/>	<hr style="width: 50px; border: 0.5px solid black;"/>

*Multiplication.*

1. By multipliers up to 12 ; as  $6739 \times 6$ ,  $800 \times 9$ .
2. By 10, 20, 30—100 ; as  $420 \times 40$ ,  $305 \times 60$ .
3. By any multipliers up to 100 ; as  $2846 \times 27$ ,  $3050 \times 28$  (Result to 100,000).
4. Use of easy factors, e.g., checking multiplication  $587 \times 56$ , 35, 48, &c.

*Division.*

1. Short division, dividends to 100,000.
2. Division by 10, 20, 30—100.
3. Long division by 21, 31—91, and by 22, 32—92 ; two figures in the quotient.

It is advisable to introduce long division by using the long form for divisors not greater than 12.

The quotient may be written over the dividend, and all figures should be kept in vertical columns according to their place value.



*Money.*

*Addition.*—Small amounts as in household bills. Four items are sufficient, and no item need exceed £10.

The following are some of the various types which occur in the grading of the work.

d.	d.	s. d.	s. d.	£ s.	£ s. d.
7	9½	10 0	2 9½	5 10	2 18 0
6	10	8 9	5 8½	3 5	6 10 9
9	3½	4 6	—	15	—
—	6	—	—	—	—

*Subtraction.*—Within the same range as the addition. Most attention will be given to work with small amounts.

Finding change from 10/-, £1, £2, &c.

*Multiplication.*—With multipliers up to 12 and multiplicands up to £10. Most of the work should deal with such small amounts as occur in household bills or wages. In this class the question of short methods should receive attention, e.g.,  $60 @ 5\frac{1}{2}d. = 60 @ 6d. - 60 @ \frac{1}{2}d.$

*Division.*—With divisors up to 12 and dividends up to £20. The Exercises should be simple, such as  $2s. \div 3$ ;  $7s. 4d. \div 4$ ;  $£13\ 10s. \div 6$ .

*Reduction.*—In the four operations above, reduction will, necessarily, be taught sufficiently to carry out these processes.

Sixpences and threepences to shillings, and *vice versa*, the amounts not exceeding 10s.—e.g., finding how many threepences in 7s. 6d. or in 2s. 8d. without reducing to pence.

The pence and shillings tables should be thoroughly known within the required range.

*Weights and Measures.*

*Length.*—Measuring in one or two denominations, yards, feet, inches, and fractions of an inch, using halves, quarters, eighths, and tenths of an inch;  $6\frac{7}{16}$  inches will be counted as two denominations.

Estimating lengths and testing by measurement.

*Time.*—Continue the work of the third class.

The number of days in each month.

*Weight.*—The work of the Third Class is to be continued.

Quarter and hundredweight.

Exercises in weighing in pounds and ounces.

Estimating weights and testing by weighing.

Children should know the weights, or approximate weights of things common to their experience; such as—

Box of butter = 56 lb.

Bag of wheat = 180 lb. to 200 lb.

Bag of flour (small) = 50 lb.

Bag of flour (large) = 200 lb.

*Capacity.*—Notion of pint, half-pint, quart, gallon.

Exercises in the actual use of those measures.

Changing from one denomination to another.

Simple money problems involving the above denominations, such as, 3 pints of milk at 8d. a quart; 3 lb. chocolate at 3s. 6d. a lb.; 6 yards hose at 1s. 9d. a foot.



*Fractions.*

Notion of 8ths, 3rds, 10ths and 12ths—e.g.,  $\frac{5}{8}$ ,  $\frac{2}{3}$ ,  $\frac{3}{10}$ ,  $\frac{2}{12}$ .

Equivalence of  $\frac{1}{2}$ ,  $\frac{2}{4}$ ,  $\frac{4}{8}$ .

Addition (mentally) of  $\frac{1}{2}$  &  $\frac{1}{4}$ ,  $\frac{1}{4}$  &  $\frac{1}{8}$ ,  $\frac{1}{2}$  &  $\frac{2}{3}$ ,  $\frac{3}{4}$  &  $\frac{1}{8}$ .

Illustrations of these fractions by the pupils with divided objects (apple, &c.), the foot-rule, folded paper, divided rectangles and lines, money, &c.

Finding  $\frac{1}{2}$ ,  $\frac{2}{3}$ ,  $\frac{3}{4}$ , &c., of a given number or sum of money not involving remainders.

Application in handwork.

*Geometry.*

Notion of right angle from folding paper, &c.

Drawing and testing right angles.

Finding right angles in objects about the classroom.

Determining the simple properties of the square and other rectangles by experiment (size of angles, equality of sides).

Drawing and constructing these figures to given dimensions with ruler and set square and dividing them into square inches.

Building up figures from square inches cut in cardboard, &c.

Problems should be given in connection with each branch of the work in this class. Many of these might be based on the articles used in the classroom or on the materials in various parts of the school building, the actual prices being obtained from lists, &c.

Pupils should habitually check their own work by suitable methods in order to ensure accuracy.

FIFTH CLASS.

*Revision of Previous Work.*

*Numeration and Notation.*

1. To 1,000,000.
2. Place value of digits.
3. Reading and writing numbers (up to a million) relating to local affairs which interest the pupils, or occurring in geography or other lessons.
4. Pupils may be helped to acquire an adequate notion of a million by simple illustrations and exercises based on that number. They should know the half, quarter, and three-quarters of a million, also that ten hundred thousands make a million.

*Addition.*

1. Single columns up to ten numbers.
2. Two, three, or four columns up to five numbers.
3. Adding two numbers in the form  $365 + 98 =$  , that is without writing one under the other.
4. Adding mentally any two numbers less than 100; also two round numbers of larger dimensions.
5. Use of the terms *sum* and *total*.
6. Checking results in addition by adding downwards, &c.

*Subtraction.*

1. To six places.
2. Exercises in the form  $700 - 241 =$  , i.e. without writing one number under the other.
3. Subtracting mentally numbers from 100 or 200.
4. Use of the terms *difference* and *remainder*.
5. Checking results in subtraction by adding, &c.



*Multiplication.*

1. Multipliers to 100; results to 1,000,000.
2. Working exercises in the form  $1,760 \times 8 =$
3. Drill in Multiplying mentally numbers up to 100 by 2, 3, 4, ..... 12.  
This will be very helpful in long division.
4. Use of the terms *factor* and *product*.
5. Checking results in multiplication by short division.

*Division.*

1. Short division (a), mental, with dividends, to three places (b), written, as in fourth class, but with increased speed. Frequent practice, oral and written, with divisions, 10, 12, 20, 30 ..... 100.
2. Exercises in the forms  $\frac{365}{7} = 52\frac{1}{7}$  and  $2,240 \div 4 = 560$ .
3. Long division with divisors to 100—
  - (a) With one figure in the quotient;
  - (b) With two or three figures in the quotient.
 As suggested under "multiplication" pupils should be drilled in multiplying divisors mentally by 2, 3 ..... 9, until good speed is attained before attempting the long division.
4. Mental division by easy divisors of two digits, 13, 15, 25, &c., with one figure in the quotient.
5. Use of the term *quotient*.
6. Checking results in division by multiplication.

*Money.*

1. *Addition*, three denominations, with items up to £10,
2. *Subtraction*, to correspond with the addition.
3. *Multiplication*, three denominations, with multiplicands up to £10 and multipliers to 100.
4. *Division*, three denominations, with dividends to £100, divisors in short division to 12, in long division (1) 20, 30, 40—100, and (2) intermediate divisors of two places.
5. Simple household bills and shopping accounts; *e.g.*, items required in making and trimming a dress, items for a meal, current prices to be used. Finding change.
6. Exercises worked in the following forms:—
  - (i)  $18s. 9d. + 7s. 6d. = £1\ 6s. 3d.$  (two items only.)
  - (ii)  $£3\ 10s. - £1\ 6s. 3d. = £2\ 3s. 9d.$
  - (iii)  $12s. 6d. \times 7 = £4\ 7s. 6d.$
  - (iv)  $18s. 6d. \div 4 = 4s. 7\frac{1}{2}d.$

7. Pupils should be encouraged to use short methods. For example in such exercises as  $2s. 3d. \times 17$  and  $5s. 6d. \times 23$ , the work will be shortened by taking 3d. as  $\frac{1}{4}s.$  and 6d. as  $\frac{1}{2}s.$  Similarly 2s. 6d. may be taken as  $£\frac{1}{5}$  and 2s. as  $£\frac{1}{10}$ .

*Weights and Measures.**Length—*

- Notion of rod, chain, mile, through concrete illustrations.  
 Estimating and measuring lengths in rods and chains.  
 Reduction of chains to yards, miles to chains, miles to yards and *vice-versa*.  
 Finding perimeters of actual squares and other rectangles, in problems of cost of fencing, planting, paving, &c.



*Area—*

Notion of square inch, square foot, square yard.

Marking out these units on paper, cardboard, blackboard. Problems based thereon: painting, paving, asphaltting, wood-blocking, digging, ploughing, &c.

Square chains and acres.

Finding areas of actual squares and other rectangles (classroom, window, playgrounds, flower-bed, &c.) in *one* of these denominations.

Relation of square foot to square inch, and of square yard to square foot, with concrete illustrations.

*Weight—*

Notion of a ton and of a stone.

Relation of ton to cwt., cwt. to lb., ton to lb., qr. to lb., lb. to oz., tone to lb.

Changing from one of these denominations to the other in the same pair: *e.g.*: How many lb. in 4st. 8lb.?

Relation of bushel to lb., as in wheat, maize, bran, with simple exercises thereon.

Load on ordinary tip-dray, lorries of various types, railway trucks, coal-hoppers, &c.

*Time—*

Relation between hour and minute.

Changing from one of these denominations to the other.

Expressing time in the form 10.46 a.m.

Simple time exercises based on the school time-table or the railway time-table.

Number of days and weeks in a year. Leap Year.

Easy exercises on dates such as: How many days are there from 23rd February to 27th March? If school closes on Friday, 13th December, for five weeks vacation, on what date will it re-open?

Pupils should know the date of their birth and their age in years and months.

*Capacity—*

Notion of bushel through concrete illustrations.

*Fractions.*

1. Equivalence of fractions, with concrete illustrations on the foot-rule, &c.:—

(a) Halves, quarters, and eighths, as  $\frac{6}{8} = \frac{3}{4}$ ;  $\frac{4}{8} = \frac{1}{2}$ .

(b) Thirds sixths, and twelfths, as  $\frac{6}{12} = \frac{1}{2}$ ;  $\frac{5}{10} = \frac{1}{2}$ .

(c) Fifths and tenths ... as  $\frac{6}{10} = \frac{3}{5}$ ;  $\frac{5}{10} = \frac{1}{2}$ .

This will prepare for the addition and subtraction of fractions as required in the sixth class.

2. Completing the whole from any of the above fractions; *e.g.*, How much is  $\frac{5}{8}$  in. short of 1 in.?

3. Use of the above fractions in handwork, and their application in simple ways to numbers, to money, &c. For example, How many inches are there in  $\frac{3}{4}$  of a yard? in  $\frac{5}{8}$  yard? How many lb. are there in  $\frac{1}{4}$  of a ton.



*Decimals.*

1. Notion of a decimal of one place, with concrete illustrations on a foot rule, decimals of £1, and of a ton.
2. Writing tenths as decimals and as vulgar fractions.
3. Finding  $\cdot 1$ ,  $\cdot 2$ , &c., of given number or quantities in very simple cases.
4. Notion of hundredths, with concrete illustrations (on squared paper, &c.).
5. Writing hundredths as decimals and as vulgar fractions.

*Geometry.*

The geometrical work is to be taken in connection with measurement work, including work on area.

1. Notion of parallel lines as occurring in squares and other rectangles, tramlines, fences, objects in the classroom, &c.
2. Drawing parallel lines with set squares or parallel rulers. (Pupils could make parallel rulers for themselves.)
3. Drawing circles with radius or diameter of given length. Easy drawing to scale. Use of squared paper for illustrative work.

*Short Methods.*

1. Multiplying and dividing by 10, 100, 1,000, 200, 500, &c.
2. In multiplication of money the use of the fractions  $3d. = \frac{1}{4}s.$ ,  $6d. = \frac{1}{2}s.$ ,  $2s. = \frac{1}{5}£$ ,  $2s. 6d. = \frac{1}{3}£$ ,  $10s. = \frac{1}{2}£$ , &c.
3. In such examples as—Find the cost of 7 yards at  $11\frac{1}{2}d.$  a yard ( $7s. - 7$  half-pence).
4. Pupils should be on the alert for the use of short methods.

*Checking Results.*

Pupils should habitually check their results, not merely by working over an exercise a second time, but by various methods.

*Approximation.*

Before working out a problem pupils should make a rough approximation of the result. This will serve as one form of check.

## SIXTH CLASS.

*Revision of Previous Work.*

*Numeration and Notation* to 1,000,000,000 – tenths hundredths and thousandths.

A knowledge of the place value of each digit.

Further drill in the four simple rules to secure speed and accuracy.

The examples to be short as laid down for fourth and fifth classes. Occasionally problems suggested by class lessons as geography, or the newspaper, where numbers in round millions are used, should be given. Practical problems dealing with the requirements of everyday life are required.

*Decimals.*—Practical illustrations of tenths and hundredths, using squared paper, straight lines.

Four operations in decimals to 3 places. Oral work in decimals should receive prominence.



*Fractions.*—Common application of fractions with denominators from 2 to 12.

Four operations.

The sum of two or three fractions only is required.

In multiplication and division of fractions two or three terms only are required. No complex work is necessary. Full use should be made of cancelling. Plenty of practical problems involving the use of the four operations of fractions should be given. Hypothetical questions that never occur in real life should be avoided.

*Money.*—Four operations in money. The amounts should not exceed those that are used in common transactions.

Shortest methods should be applied as  $5s. 11\frac{1}{2}d. \times 17 = 6s. \times 17 - \frac{1}{2}d \times 17$ ;  $\pounds 2s. 6d. \times 28 = \pounds 2 \times 28 + 2s. 6d. \times 28$ ;  $14s. 3d. \times 27$ , begin with 27 threepences.

No unnecessary figures or statement should be used. Practical, everyday problems involving the above operations.

Reduction as required in the four operations; also pounds to half-crowns, florins, sixpences threepences or pence; half-crowns to sixpences, threepences; or pence; florins to threepences, pence or halfpence; shillings to sixpences, pence; and in each case *vice versa*.

*Accounts.*—Bills for bread, meat, milk, groceries, drapery, gas, &c. The quantities and prices taken to be those that occur in real experience.

Rates and taxes to be taken at so much in the pound.

Thorough and practical understanding of the terms commission, trade discount, rate of interest, rate per annum, bank deposit, loans. Problems dealing with simple profit and loss as actually occurring in experience.

Finding simple interest on whole pounds for a year or a number of months,

*Percentages.*—Practical application of percentage. Pupils to clearly understand that percentages are not confined to sums of money.

A definite notion of each of the following and reduction (both ways) from the one denomination to the other within each pair; cwts. and qrs.; cwts. and lbs.; bushels and pecks; gallons and quarts, quarts and pints; miles and furlongs; yards and feet; feet and inches; chains and rods; chains and links; acres and square chains; square chains and square yards; cubic yards and cubic feet; cubic feet and cubic inches; years and months; months and weeks; weeks and days; days and hours; hours and minutes; minutes and seconds; calendar months and days.

Where possible the pupils should handle, measure or experience the unit dealt with. Addition, subtraction, multiplication, and division of these units as they occur in practical questions is necessary, e.g.,  $1\frac{1}{2}$  pints at 2s. 6d. a quart.

Calculating intervals of time, as from 8.35 a.m. to 3.20 p.m., the number of days from 3rd September to 14th March. Practical problems dealing with these, as in a railway or shipping time-table.

Problems should be *real* in the sense that they are such as are encountered in the world's work to-day.



*Geometry.*—Construction of right angles, parallel lines, squares, oblongs and circles.

Bisect a straight line.

Eight points of the compass.

Construction of angles  $30^\circ$ ,  $45^\circ$ ,  $60^\circ$ ,  $90^\circ$ ,  $120^\circ$ .

Construct triangles (a) with the three sides given ;

(b) with the base and the base angles given (the angles given to be those above.)

Graphs to illustrate facts in geography, rainfall, school attendance, population of countries, &c.

Calculating areas of squares and other rectangles in square inches, square feet, square yards, or in acres from square chains.

Practical work in measuring the common rectangles in and about the school, and calculating areas from the data thus gathered.

Value of an allotment of land at so much per foot frontage.

Scale drawing  $1''$ ,  $\frac{1}{2}''$ ,  $\frac{1}{4}''$ ,  $\frac{1}{8}''$ ,  $\frac{1}{16}''$  to the foot, yard, or chain.

Encourage the children to check carefully all written work, practise approximations and use them to estimate the correctness of answers. Pupils themselves should formulate problems for class use. In sixth as in other classes each new step should be introduced by concrete illustrations.

Ability to solve intelligently simple every-day mathematical questions with smartness and accuracy embraces all that is required from the primary school. Pupils should be thoroughly sound in this respect on completion of the sixth-class course.



## HISTORY AND CIVICS.

**GENERAL NOTES.**—*This syllabus is intended to be suggestive. It makes no rigid prescription of method or material. For Classes I to V inclusive, more material is supplied than is needed; teachers will make a selection from each section according to the resources at their disposal.*

*The following statement indicates the underlying principles which should be kept in view by teachers:—*

1. Regard for history other than English or Imperial, the object being to broaden the outlook of the pupils, and to encourage respect for the point of view of other races than our own.
2. Admiration of noble characters of all lands, in all times.
3. Special attention to the history of Australia and the British Commonwealth.
4. Vivid treatment of social history, so as to illustrate social development.
5. Judicious correlation of history, as occasion offers, with English, geography, music, hand work.
6. Free use of pictures, poems, songs, time charts.
7. In all classes the aim is, through picturesque and dramatic treatment, to cultivate a liking for history and historical literature suited to the capacity of the pupils.

## Principles of Teaching.

**History.**—The aim in teaching history is to give such an account of the past as will enable the pupils to gain some insight into the present, and furnish them with ideals of life upon which they may model their own. It is desirable to keep in view the relation between the three essential factors—the teacher, the children, and the subject-matter.

The teacher must have knowledge, breadth of outlook, a sympathetic and tolerant spirit. Thus equipped he will be free from national egotism, regarding history not as the story of a peculiar people, but rather the story of the human race in its gradual development from simpler to the more highly civilised forms of society, a continual striving, despite many failures, for better and happier conditions of life. A sense of growth and development will colour all the teaching.

The children, being children, determine largely the nature and scope of the subject-matter. They are interested in the stories of great personalities and stirring events. They love colour, romance, movement. They like to be told and to read about boys and girls and men and women of bygone days, to contrast present and past modes of life, and to imagine themselves as living in far-off times. Nor should it be forgotten that children have not only ears to listen with, but eyes to see with, and hands to use. They enjoy dramatisation, manual work, singing, and reading. Their powers in these directions should all be called into play in a well-planned history course.

A careful selection of the material available is essential. The people of history and romance, if skilfully presented, are very real to the child. He not only gets satisfaction in the happiness that flows from his awakened



interest, but life values. Many great men have ascribed the beginnings of their own aspirations to Plutarch's Lives. Let it then be a noble company from all the ages and of all lands to which we introduce him. Free reading has a value of its own apart from its use as a preparation for systematic study. Though some systematic work is begun with Class V, free historical reading should continue through the Primary Course.

There are many aids which the teacher may press into service. Striking incidents may be dramatised. Geography should always be associated with history, especially Australian exploration. Reality and vividness may be secured by reading interesting passages from literature and from original sources. Places or objects to which historical interest attaches can be used to give a first interest in history. Pictures provide, fill out, correct, and confirm mental images. Time charts may be used to convey in a large way conceptions of time periods. Correlations with English, music, and hand work will suggest themselves frequently. Reference to some of these will be found in some of the books listed for the use of teachers.

*Civics.*—Special attention is directed to the prominence given to applied civics. Teachers will be expected to show some resource in devising ways and means by which the children may practise some of the duties of citizenship, and through this practice develop a sense of responsibility.

The syllabus also provides for the celebration of days. Such celebrations should be carried out in a manner faithful to the spirit of those who have made the day memorable. Anzac Day is peculiarly Australia's Day, and will be best commemorated by some act of social service rendered individually, or by the school community.

### **Indirect Moral Teaching.**

Moral teaching should permeate the whole management of the school, and be embodied in the methods of discipline, in the treatment of children by the teacher, in the proprieties and manners required from the children, and in the example of the teacher. The moral influence of the teacher should be felt in a special manner in the freedom of the playground.

### **Direct Moral Teaching Required.**

Apart from the indirect influence of school discipline in the formation of character, teaching of a direct kind is needed so that the child may form ideals of conduct and be stimulated to act in accordance with them. In the early stages this is best done by stories with a strong human interest.

### **Scripture Lessons to be Read.**

The Syllabus provides for the systematic reading of the authorised Scripture lessons by all pupils who are sufficiently advanced to be able to overcome the mechanical difficulties of the text. It is important that this course should be regularly followed. Pupils whose parents have conscientious objections should be exempted from these lessons.

### **FIRST AND SECOND CLASSES.**

1. *Scripture.*—Stories from the authorised Scripture Books.

2. *Morals.*—Stories from Fables\* with a view to the inculcation of moral principles, e.g., courage, prudence, perseverance, self-control, self-respect, cleanliness, orderliness, obedience, kindness, gentleness, fairmindedness,



truthfulness. In this connection the teacher may have recourse to the folklore of various countries, to legendary tales, and to stories of men and women famous in history.

3. *Civics*.—Opening greetings between teacher and pupil. Politeness in daily intercourse in and outside the class-room. Correctness in personal habits and speech. Sympathetic regard for the feelings of other persons and animals, *e.g.*, care of pets, feeding of birds, both wild and tame, "playing" nurse and doctor, "playing" shopping. Celebration of Anzac Day, Mothers' Day, and Bird Day.

4. *History*.—

- (a) Stories of primitive men in a manner suggested by Catherine Dopp. Story of the early settler in the bush.
- (b) Simple history stories calculated to prepare the way for later historical work, *e.g.*, Horatius, St. Augustine, Alfred, Robin Hood, The Burghers of Calais, Columbus, Dampier, Cook.

NOTES.

*Dramatisation*.—Horatius on the Bridge, Alfred and the Cakes, Robin Hood and Friar Tuck, the Landing of Cook.

*Correlation*.—Correlation of stories with appropriate forms of manual expression, *e.g.*, making pit dwellings with clay in the sand tray, primitive pots in plasticene, dug-outs in woods, paper helmets and shields. Songs and poetry.

THIRD CLASS.

- 1. *Scripture*.—Stories from the authorised Scripture books.
- 2. *Morals*.—Stories chosen for their moral instruction from similar sources as in Class II.
- 3. *History*.—
  - (a) Stories of the Australian aboriginals: "The Little Black Princess," Mrs. Gunn; story of the Australian Flag.
  - (b) Stories of noble persons of all lands, *e.g.*, Leonidas, Cincinnatus, St. Aidan, Haroun-al-Raschid, Richard I, St. Francis, Joan of Arc, Columbus, Sir Thomas More, Captain John Smith, Washington, Lincoln, Captain Scott, Helen Keller, Braille, Bass and Flinders, Kennedy and Jacky Jacky.
- 4. *Civics*.—Cultivation in school and playground of proper deportment, respect for the rights and property of others, playing the game, conduct in street, in shops, trains, trams.

NOTES.

*Dramatisation*.—The Pocahontas incident. Columbus and his critics. Stories from Arabian Nights. The imprisonment of Richard I. The landing of Phillip.

*Correlation*.—Correlation with manual expression. Making the home of the little Black Princess. Use of dolls dressed to represent various personalities. Making a moat, castle, and other structures with clay, sticks, cardboard, and straw. Making the Australian Flag. Songs and poetry.

\* See lists of books at the end.



## FOURTH CLASS.

1. *Scripture*.—Authorised Scripture Lessons.

2. *Morals*.—Stories of great persons, *e.g.*, Pericles, Regulus, Confucius, Akbar, Galileo, Kosciusko, Leonardo da Vinci, Newton, Sir Philip Sidney, Garfield, Fabre, Livingstone, Plimsoll, or other striking characters that commend themselves to the teacher.

3. *Civics*.—

- (a) Origin of the name of the village, town, suburb, or locality, and how it grew. Phases of development, landmarks, buildings, means of communication, public hospital, streets, gardens, the school, the post office, the town hall, commerce and industry. Teacher and pupils might build the town or village in the sandpile, gradually filling in its social features—the school, the church, &c.
- (b) The doctor, the postman, the policeman, the tram-conductor. Children should play "The Doctor," "The Postman," &c.
- (c) Regard for school furniture and buildings.
- (d) Formation of school committees, *e.g.*, flowers, library, &c., each to meet regularly for report. Inquiry after sick scholars. A part of the garden, both flower and vegetable, as a hospital plot.
- (e) Celebration of Anzac Day, Anniversary Day, Mothers' Day, Bird Day.

4. *Australian History*.—The early voyagers. Captain Cook. The Settlement by Phillip. Pictures and Talks of Old Sydney. Flinders. McArthur and Wool. The Crossing of the Blue Mountains. Oxley. Hume and Hovell. Sturt. Days of the Pioneers.

NOTE.—Teachers in both city and country schools might undertake visits to places of historic interest, *e.g.*, La Perouse, Macquarie-place, historic churches.

5. *General History*.—A series of lessons to give a picture of Celtic Britain, the new features introduced by the Roman invaders, an English village managing its affairs, the men who extended Christianity, *e.g.*, St. Augustine.

The character and achievements of the Normans. The beautiful cathedrals of France and England. The homes, amusements, and occupations of a mediæval rural community. The peasant at work. The peasants' revolt. Sheep and wool. The guilds.

## FIFTH CLASS.

(Three hours per week.)

1. *Scripture*.—Authorised Scripture Lessons.

2. *Morals*.—Social service. John Howard, Florence Nightingale, Father Damien, Wilberforce, Lincoln.

3. *Civics*.—

- (a) Local municipal or shire council. The privileges enjoyed because of the work of such men as Simon de Montfort, Hampden, Wentworth, Parkes.



- (b) The pupils should be encouraged to visit the public institutions, make reports on local history and on subjects of local interest, *e.g.*, the lay-out of their town or village, to vote on matters of class interest, and to select their group representatives.

4. *Australian History.*—

- (a) The settlements in the other colonies—Tasmania, Western Australia, South Australia, Victoria, Queensland. The treatment here might take the form of brief sketches from the foundation to the permanent settlement and development centring about the stories of prominent colonists, *e.g.*, Stirling, Light, Batman, Lang.
- (b) Further explorations—Eyre, Burke and Wills, McDouall Stuart, Leichhardt, Mitchell, Kennedy, John Forrest.
- (c) Growth of Australian Industries—The whalers, the squatters, the miners.
- (d) Celebration of Anzac Day, Empire Day, Mothers' Day, Bird Day, Explorers' Day in places associated with explorers' work.

5. *General History.*—

- (a) *The age of expansion*—The rise of the Turks. The work of Prince Henry the Navigator. Columbus. Magellan. Cortes, Cartiers. Drake.
- (b) The settlement of the New World. Raleigh. Champlain. Captain John Smith.
- (c) *Trading Companies and Commercial Wars*—*e.g.*, *East India Co.* The Struggle for Commercial Supremacy. England *v.* Holland. Blake. England *v.* France. Chatham. Clive. Wolfe.

#### SIXTH CLASS.

The time allotted would give about 120 half-hour lessons and eighty three-quarter hour lessons in the year.

The typical cases suggested throughout the Sixth Class Syllabus may be altered in the *Gazette* from year to year.

1. *Authorised Scripture Lessons.*—(About forty half-hour lessons.)

2. *Morals.*—(About fifteen half-hour lessons.) Social service, *e.g.*, the Bush Nurse, the Story of the Hay High School. The "little nameless unremembered acts of kindness and of love"—*e.g.*, toys for sick children, making bandages for first-aid, flowers for hospital, exchange of flowers between schools, bird sanctuaries. Local residents doing service to their school and country.

Recognition of the need of absolute honesty in our dealings with one another and with other nations, *e.g.*, Loss of foreign markets.

3. *Civics.*—(Morals and Civics about forty lessons).—

- (a) The work of Government as exemplified in simple concrete cases, *e.g.*: Public Health—the food inspector. Education—the school. Development of natural resources—Yanco. Industrial legislation—factory supervision. Administration of justice—trial by jury. Defence—junior and senior cadets. Taxation—income-tax return.



- (b) Throughout the year instruction should be given to help the children to realise that they will be ratepayers of a shire or municipality, citizens of New South Wales, Australians with national duties, and members of a nation associated with other nations to form the great British Commonwealth.
- (c) *Applied Civics*.—Observational work, *e.g.*, visiting Parliament or Council when in session. Reports upon local services, *e.g.*, water supply. Discussions upon topics in which children are interested. Celebration of days—Anzac Day, Shakespeare Day, Empire Day, Mothers' Day, Bird Day.

#### 4. *Australian History* (about forty lessons).—

- (a) *Growth of Australian Industries*.—The teacher has an opportunity here to show development from the times of the whalers, squatters, and miners, *e.g.*, from hand shears to shearing machine; Farrer and wheat improvement; from reaping hook to harvester; bullock wagon to railway; growth of Newcastle (coal), Bendigo (gold), Broken Hill (silver); Lithgow and Newcastle (steel works).
- (b) The Great War and Australia's part in it.

#### 5. *General History* (about eighty lessons).—

*SPECIAL NOTE.*—The child's sense of continuity in History is slow and uncertain in its growth. A child's interest in history arises from the vivid and the picturesque, and the stirring incident. The time chart built up by the pupils themselves, the thread of connection between person and episode, and between episode and episode, the vivid narrative and biography to bring into relief the characteristic features of a period; the reading of the Text-book with the pupils with free discussion and stressing of the pupils' own judgments, free reading and the fixing of its bearings and value, are the factors for systematic work. All teachers will have their own methods of dealing with these factors; the wise teachers will so control the selection of the material as to fit it to the growing grasp of the subject by the pupils themselves.

- (a) *Growth of Civic Freedom*.—Magna Charta. Simon de Montford. John Wycliffe. Sir Thomas More. Pym. The Revolution of 1689. England and the French Revolution. Emancipation of Roman Catholics and Jews. The extension of the franchise—Russell, Gladstone. Votes for women.
- (b) *Growth of the Industrial System*.—Social life in Shakespeare's day. Cottage industries in the 18th Century. New ideas and new methods in agriculture. The age of invention—machinery and power: Watt, Arkwright; of railways: Stevenson; of steamships, of gas and electricity.
- (c) *Growth of an Empire based on Liberty*.—The French in Canada. Washington. Self-government for Australia and New Zealand. The Indian Mutiny. The Boer War and Self-government for South Africa. Whole-hearted co-operation of the sister nations of the Empire during the War—Australia a Nation.



## AUSTRALIAN NATIONAL SONGS, ETC.

## Poetry.

Song of Australia	..	..	..	Mrs. Carlton.
Captain Cook	..	..	..	J. B. O'Hara.
Flinders	..	..	..	J. B. O'Hara.
Federal Song	..	..	..	G. E. Evans.
Women of the West	..	..	..	G. E. Evans.
Dominion of Australia	..	..	..	Stephens.
Australian Anthem	..	..	..	Stephens
Australia's Flag	..	..	..	Parke
Waratah and Wattle	..	..	..	H. Lawson
Australia Fair	..	..	..	Maybanke Anderson.
An Australian Battle-Hymn	..	..	..	J. A. Allan.
The Woodcutter..	..	..	..	J. H. Allen.
The Old Bush Road	..	..	..	Carmichael.
Men of Australia	..	..	..	Dyson.
Native Companion	..	..	..	Emerson.
The Ocean Beach	..	..	..	Mailler.
Where the Pelican Builds her Nest..				Mary Foot.
Australian Federation	..	..	..	Gay.
September in Australia	..	..	..	Kendall.
Bellbirds	..	..	..	Kendall.
The Warrigal	..	..	..	Kendall.
Last of his Tribe	..	..	..	Kendall.
A Gallop of Fire	..	..	..	Marie Pitt.
Mountain Myrtle	..	..	..	Marie Pitt.
Slumber Song	..	..	..	May Pointer.
The Australian Bush	..	..	..	K. Mackay.
My Country	..	..	..	D. Mackellar.
Australia	..	..	..	O'Dowd.
Ave Australia	..	..	..	Stephens.
Song of the Cattle Hunters	..	..	..	Kendall.
The Sick Stockrider	..	..	..	Gordon.
Clancy of the Overflow	..	..	..	Paterson.
The Travelling Post Office	..	..	..	Paterson.
Andy's Gone with the Cattle	..	..	..	Lawson.
Out Back	..	..	..	Lawson.
Drought	..	..	..	Ogilvie.
Home	..	..	..	Le Gay Brereton.
The Nation Builders	..	..	..	Evans.
Elands River	..	..	..	Evans.
W. B. Dalley	..	..	..	Kendall.
Leichhardt	..	..	..	Kendall.
John Farrell	..	..	..	Evans.



## Reference Books.

This list is neither exhaustive nor authoritative. It is intended only to suggest books that may be useful. The more important for the teachers' own use are indicated by an asterisk; those which may be read by children by a double asterisk.

*Legend.*(A) *Australian—*

- \*\*Mrs. Gunn: The Little Black Princess.
- Dennett: The Legend of Tawhaki.
- G. G. McRae: Story of Balls—Deadro.
- (Both the latter in leaves from Australian Poets A and R.)
- \*\*Gibbs: Snugglepot and Cuddlepie.
- Whitfield: Spirit of the Bush Fire.
- Mrs. Parker: Australian Legendary Tales.
- \*\*Amy Mack: Bushland Stories.

(B) *British—*

- Arthurian Legends (Various).
- Charlotte Guest: Mabinogion (Welsh).
- Joyce: Old Celtic Romances.
- Thomas: Celtic Legends (Oxford Press).
- Rolleston: Myths and Legends of Celtic Race.
- Ebbutt: New Myths and Legends of British Race.
- \*Kipling: Rewards and Fames.
- \*Kipling: Puck of Pooks Hill.

(C) *Norse—*

- Peter Parley's Tales.
- \*\*Heroes of Asgard (Pub., McMillan).
- \*\*Tales of Northland (Pub., McMillan).
- Norse Tales: (Told through the Ages Series).

(D) *Mediæval—*

- Mediæval Legends: Synett (Oxford Press).
- Romance of Roland: (Told through the Ages).

(E) *Classic—*

- Cazley's: Classic Myths.
- Bullfinch: Age of Table (Everyman).
- Hawthorne's: Tanglewood Tales (Everyman).

*Early Man:*

- Catherine Dopp's Series, e.g., Early Cave Dwellers.
- McIntyre: The Cave Boy.
- Hall: The Dawn Before History.
- Avebury: Prehistoric Times.
- Osborne: Men of the Old Stone Age.
- Smith: Man the Primæval Savage.
- Wells: Outline of History (Early Chapters).



*Morals.*

- Sharp: Education for Citizenship.  
 Maccunn: Making of Character.  
 Adler: Moral Instruction of Children.  
 \*\*Gatly: Parables from Nature.  
 Cole: Civics and Morals.  
 Yonge: Book of Golden Deeds.  
 Edgar: Heroes of England.  
 \*\*Cole: Great Australians.  
 \*\*Cramp: Australian V.C.'s.  
 Strong: Australian Pioneers.  
 \*\*McDougal: The Brave Days of Old.  
 Stirling: Torch Bearers of History.  
 Biographies in English Men of Action Series.  
 \*Church: Trial and Death of Socrates.  
 Jack: The Children's Heroes.

*Civics.*

- Thom and Rigg: Handbook of Civics.

*Australian.*

- \*Scott: History of Australia.  
 Strang: Captain Cook's Voyage.  
 Watts: Stories of Australian History.  
 \*\*Long: Stories of Australian Exploration.  
 Cramp: Australian Atlas.  
 Favenc: Australian Exploration.  
 Cole: Great Australians.  
 Finney: History of Australia.  
 Jose: History of Australia.  
 Scott: History of Australia.  
 Sutcliffe: History of Trade Unionism in Australia.  
 Cramp: Life of Wentworth.  
 Swinburne: A Source Book of Australian History.  
 \*Harris and Henderson: A Source Book of Australian History.  
 Latham: Australia at the Peace Conference.  
 Bean: Australia at War.  
 \*Atkinson: Australia, Economic and Political Studies.  
 \*Scott: Life of Mathew Flinders.  
 Source Books: (1) Harris and Henderson. (2) Swinburne.  
 Murdock: The making of Australia.  
 Grimm: The Australian Explorers.

*Social History.*

- \*\*Synge: Social History of England.  
 Leathes: The People in the Making.  
 Shaw: Dresses and Decorations of the Middle Ages.  
 Gasquet: English Monastic Life.  
 \*Quennell: A History of Everyday Things in England.  
 Jusserand: English Wayfaring Life in Middle Ages.  
 \*Guest: Social History of England  
 \*Reed: History Pictures (six sets).



*Imperial History.*

- Lucas: Historical Geography of the British Colonies (Oxford Press).  
 \*Woodward: Expansion of the Empire.  
 Jose: Growth of the Empire (Angus and Robertson).  
 Department of Education: Story of English People.  
 Hall: The British Commonwealth of Nations (Methuen).  
 Cromer: Modern Egypt (Macmillan).

*British History.*

- Warner and Marten: Groundwork of British History.  
 Nelson (publisher): New Age History Readers.  
 Nelson (publisher): Highroads of History.  
 \*\*MacDougall (publisher): Tales from History; Romance of History.  
 McKilliam: Highways of the World.  
 Fletcher and Kipling: History of England.  
 \*Macaulay: Historical Essays.  
 \*Green: Short History of English People (Everyman).  
 Miss F.: Stories for Children.  
 Bell (publisher): English History Source Books.  
 Wells: The Outline of History.  
 Scott: Men and Thought in Modern Movements.  
 \*Hearnshaw: Europe in 19th Century.  
 T.C. & B.C. Jack: The Children's Heroes.  
 Nesbit and Ashley: Stories from English History.  
 Gillies: Simple Stories in English History for Young Australians.

*Method and Aids.*

- Stevenson: Social History and Manual Work.  
 Reed: History Pictures (six sets).  
 Turrall: Illustrations to British History.  
 Bartholomew and Cramp: Australian Atlas.  
 \*Jarvis: Teacher of History.

**English Economic History.**

- \*Lipson: The Economic History of A. and C. Black.  
 England.  
 Ashley: The Economic Organisation Longman.  
 of England.  
 Warner: Tillage, Trade, and Inven- Blackie and Son.  
 tion.  
 Allsop: An introduction to English Bell and Sons.  
 Industrial History.  
 Bland, Brown, and Tawney: English Bell and Sons.  
 Economic History (Select Docu-  
 ment).



**Useful Biographies.**

Hughes: Livingstone .. ..	English Men of Action.
*Corbett: Drake .. ..	English Men of Action Series.
Bradley: Wolfe .. ..	English Men of Action Series.
*Bradley: Captain John Smith ..	English Men of Action Series.
Mrs. Green: Henry II .. ..	English Statesmen Series.
Tout: Edward I .. ..	English Statesmen Series.
Harnson: Chatham .. ..	English Statesmen Series.
Rosebery: Pitt .. ..	English Statesmen Series.
*Morley: Walpole .. ..	English Statesmen Series.
*Morley: Oliver Cromwell .. ..	Macmillan.
Scott: Mathew Flinders .. ..	
Wilbert: Mirabeau .. ..	Foreign Statesmen Series.
Cesaresco: Cavour .. ..	Foreign Statesmen Series.
Hassall: Mazarin .. ..	Foreign Statesmen Series.
Froude: Life and Letters of Erasmus	Longmans.

**Ancient History.**

*Briarted: Ancient Times .. ..	Ginn & Co.
Myers: General History .. ..	Ginn & Co.
Grant: The Age of Pericles .. ..	Longmans.
*Tucker: Life of Ancient Athens ..	
How and Leigh: A History of Rome..	Longmans.
Warde Fowler: Rome .. ..	H.U. Library.
Wilmot Buxton: Ancient History ..	
Plutarch: Lives .. ..	

**Modern European History.**

*Grant: A History of Europe .. ..	Longmans.
Schapiro: Modern and Contemporary European History .. ..	Constable.
*Robinson: History of Western Europe	Ginn & Co.
Robinson: The Development of Modern Europe.	Ginn & Co.
Robinson: Reading in Modern European History.	Ginn & Co.
*Keynes: Economic Consequences of the Peace.	Macmillan.
Morley: Life of Gladstone .. ..	Macmillan.
Morley: Recollections .. ..	Macmillan.



## Historical Novels.

Flaubert: Salamambo .. ..	Grant Richards.
Davis: A Friend of Cæsar .. ..	Macmillan & Co.
Wallace: Ben Hur .. ..	Harper and Brothers.
Sienkiewicz: Quo Vadis .. ..	Went & Co.
Lytton: The Last Days of Pompeii ..	Routledge and Sons.
Pater: Marius the Epicurean .. ..	Macmillan & Co.
Newman: Callista .. ..	Longmans.
Merejkowski: The Death of the Gods	Constable & Co.
Kingsley: Hypatia .. ..	Macmillan.
Yonge: The Little Duke .. ..	Macmillan.
Corbett: The Fall of Asgard .. ..	Macmillan.
Lytton: Harold .. ..	Collins.
Kingsley: Hereward the Wake .. ..	Macmillan.
Scott: The Betrothed .. ..	Collins.
Scott: Talisman .. ..	Collins.
Scott: Ivanhoe .. ..	Collins.
Aquilar: The Days of Bruce .. ..	Warne & Co.
Lytton: Rienzi .. ..	Routledge and Sons.
Converse: Long Will .. ..	Longmans.
Henty: The Lion of St. Mark.. ..	Blackie and Son.
Lytton: The Last of the Barons ..	Cassell & Co.
Eliot: Romola .. ..	Blackwood and Sons.
Reade: The Cloister and the Hearth..	Collins.
Merejkowski: The Forerunner ..	Constable.
Manning: The Household of Sir Thomas More.	Routledge.
Ainsworth: Windsor Castle .. ..	Routledge.
Rider Haggard: Dysbith .. ..	Longmans.
Marion Crawford: In the Palace of the King.	Macmillan.
Weyman: Count Hannibal .. ..	Smith Elder.
Kingsley: Westward Ho .. ..	Macmillan.
Mary Johnston: By Order of the Company.	Constable.
Blackmore: Lorna Doone .. ..	Sampson, Low, & Co.
Crockett: Lochinvar .. ..	Methuen & Co.
Thackeray: Esmond .. ..	Smith Elder.
Frankfort Moore: The Jessamy Bride	Hutchinson.
Winston Churchill: Richard Carvel..	Macmillan.
Dickens: A Tale of Two Cities ..	Chapman and Hall.
Louis Becke: A First Fleet Family ..	Fisher Unwin.
Quiller Couch: Adventures of Harry Revel.	Cassell & Co.
Merriman: Barlasch of the Guard ..	Smith Elder.
F. A. Steel: On the Face of the Waters.	Heinemann.



**GEOGRAPHY.**

*Aim.*—Through the cultivation of an abiding interest in Geography the main aim of this Syllabus will be secured. Sir John Millais' famous picture, "The Boyhood of Raleigh," is an inspiring embodiment of this aim. Raleigh and a companion are depicted as listening, all "ears and eyes," to the tales of discovery. The men who captured so fully the lad's attention were true teachers, for they nurtured and strengthened his innate love of hearing and reading of strange lands and stirring adventures. That is the



task of the teacher of Geography. He has but to invest his stories with something of the freshness and charm of Raleigh's rude instructors to win a like response. All children listen with a deep sense of wonder to such stories as were told to Raleigh, and they evince a keen desire to pursue the subject if they are wisely guided. Not many are likely to become famous travellers, but their young minds will be fired and the effect will persist in after-school years.

*Interest and Information.*—The relation of interest and information needs to be clearly grasped. The acquiring of sound information is important, but it must never be allowed to displace the cultivation of



interest as the main aim. When interest has been fully secured information may very largely be left to look after itself. For pupils who are interested in a subject will desire to pursue it on their own account, and not only will much of the information which the teacher has handled efficiently in his lessons become their permanent possession, but it will be considerably augmented and consolidated by their independent reading and inquiry. The giving of extensive notes or lists of facts to be memorised will not achieve the desired end. Children so trained may pass an examination but they are unlikely to be enamoured of their subject and they will discard it on leaving school. The Syllabus has been devised to minimise the possibility of such an undesirable result.

*Teacher's Necessary Equipment.*—An obvious condition of success is that the teacher himself be a wide and constant reader of geographical literature. Enthusiasm begets enthusiasm. No lesson in Geography can be effective unless the teacher exhibits a genuine delight in the information which he is handling.

*A. Principles Underlying Selection of Materials of Instruction.*—The principles underlying the selection and organisation of the materials of instruction need to be thoroughly understood.

Three strands run through the whole course:—

- (1) An Australia strand.
- (2) A Physical Geography strand.
- (3) A Universal Geography strand.

(1) Australia has been made the core of the instruction. Australians should be primarily interested in and well informed about their native land. In the Primary Schools it is inadvisable to concentrate on any one State or District. Accordingly, attention is directed constantly to the whole Commonwealth, and the States are considered only in due subordination. This is the right basis for the promotion of federal unity.

(2) It is necessary that a few fundamental geographical notions as direction, mountain range, river, climate, be clearly fixed in the minds of the pupils. For this reason, some work of that character has been included from the beginning. The work prescribed has been considerably reduced so that this essential basis for future geographical study may be firmly laid. Concrete aids, the actual objects, modelling, etc., should be utilised wherever possible. Formal definitions need not be given. The teacher has merely to see that the right notions are being formed; the power to express and explain these will follow.

(3) If Australians are not to take a parochial view of themselves and their country they must be interested in other lands and eager to know what is happening there. This section gives the teacher the opportunity not only of supplementing the study of Australia but also of taking his pupils abroad and making them feel something of the lure of travel and of the map. In the hands of the enthusiastic teacher who uses readers and other aids freely, this should become one of the most delightful and informative portions of the school work. It is suggested that comparison with Australia form a strong feature of the treatment, and that casual reference be frequently made to towns and countries not mentioned in the Syllabus.



*B. Suitability of Materials.*—The topics for each class have been selected only after a stringent examination of their suitability for the pupils concerned. *However, the teacher is free to substitute such materials as he feels more confident to handle or which he considers more suitable for his purpose.* There is much, of course, that must remain unaltered, such as the topics of Physical Geography and most of the work prescribed for the Sixth Class. But in both the Australian and the Universal Geography strands there is plenty of scope for independent selection. It is hoped that the teacher will substitute freely, always taking care that he does so in strict accordance with the principle of complete suitability. For example, the children of the Western Division of the State are likely to be attracted more to the Coastal or Tableland Districts than to the Interior of Australia. The teacher will be wise to make the desirable adjustment.

*C. Materials Reduced to a Minimum.*—The quantity of prescribed materials has been reduced to a minimum.

Apart from the exclusions made in the preceding paragraph, *the teacher is empowered to take just so many of the topics as can be effectively dealt with to realise the aim and spirit of the Syllabus.* Thus, with ample time and appropriate material, he should be enabled so to prepare and present his lessons as to cultivate in his pupils a deep and abiding interest in Geography.

*Reading Material.*—This Syllabus cannot be carried out successfully without the aid of considerable reading material to suit all classes. The central idea being that the treatment should be so stimulating that the pupils will desire personally to pursue the subject, appropriate material should be available in sufficient quantity. Such provision should not be impossible even in the smallest and most remote schools. The abundance of suitable literature provided in books of travel, text books, special readers, magazines, newspapers, etc., is inexhaustible, and it only requires the right organising spirit to bring a sufficiency of it to any school. Once admitted, it should be duly classified and every measure taken to ensure its careful preservation. A few years' acquisitions should suffice to place such a geographical library on a satisfactory basis. It but needs the will to succeed.

Attention is specially directed to the valuable assistance which may be rendered by the School Magazine. The volume of any single year contains scores of pieces (including poems) appropriate to the various strands. If the successive numbers are bound and kept in the schools they will themselves largely meet the need.

The daily newspaper and the various illustrated journals should be pressed into constant service. Both will help to impart a piquant touch of reality to the instruction while at the same time providing abundant opportunity for fresh reference to much that has already been treated in the course.

*Engaging the Activity of the Pupils.*—Throughout the whole Course, it is desirable that the pupils be trained to active participation in the work. The passive reception of information tends to kill interest, while activity in its acquirement increases it. For this reason, emphasis is laid on planning, modelling, sketching, collecting, recording, reading, and inquiring.

In modelling the large playground map of Australia the pupils should do the major portion of the work under the teacher's guidance. Construction of this sort appeals powerfully to young people and the more the teacher can find for them to do the more he will interest them in the subject and impress them with its lessons.



The modelled map should, indeed, become a permanent centre of instructional activity. As far as possible, the lessons should be given with the pupils standing around it and fresh modelling or other illustrative work in connection with them should be made a common practice. Much of this might be of a temporary character. For example, when reading "We of the Never Never," the rough outlines of the road from Darwin to Elsey Station could be given concrete form on the map. When they have served their purpose they can be removed.

The keeping of the weather records should be entirely in the hands of the pupils.

In dramatisation, too, the teacher has an ally whose services should be frequently utilised. Love of it is an inherent trait of most children. The dramatic work done in the Infant School should be continued with appropriate adaptation through all the classes of the Primary School. The Sixth Class pupils might be allowed to act as representatives of different nations or cities, and speak, in lecturettes, on their behalf. Dialogues between representatives would furnish interesting variety. A conversation, for example, between an Esquimaux and a Negro about life in their respective countries could not fail to enliven the work, particularly if suitable costuming were employed.

A full application of the Project Method will also help to swell the opportunity for the desired activity. Numberless problems of a suitable character will suggest themselves.

Further, the pupils' co-operation might be constantly sought in the preparation and demonstration of the numerous simple experiments that should be conducted in connection with so many features of the work, particularly the Physical Geography strand.

While thus giving full rein to the pupils' desire for action, the teacher will do well to remember that his own presentation of a topic in carefully prepared lessons, readings, talks, etc., is indispensable and is indeed one of the most effective vehicles of instructional influence.

*Sketch Mapping.*—Sketch-mapping should be a conspicuous feature of the treatment, and facility in employing sketch-maps to illustrate their written work should be regarded as a desirable accomplishment in the pupils. Memory-mapping with full and accurate minutiae of form and information will not be required. Broad outlines and essential information are all that is necessary. But this should not preclude teachers from allowing those pupils who show special aptitude or inclination to draw, in their leisure time, large, coloured maps with abundance of detail.

*Revision.*—A conception of revision more in accord with the structure and spirit of this Syllabus should be cultivated. Much of the old, mechanical method of revising should be abandoned and a type substituted that calls up the back work in new and interesting connections. Thus, the teacher of Sixth Class knowing generally the ground covered in previous classes will make it his care to organise his lessons in such a way as will necessitate a reference to important facts already presented. The Fifth Class teacher will act likewise, and the same method will be adopted in the other classes. Such procedure should ensure that the pupils leave the Primary School with a thoroughly interwoven body of vital knowledge.

*The Commemorative Element in Geographical Names.*—The map of Australia is strewn with names of a richly commemorative character. Many of them have been given to perpetuate the memory of heroic men and historic



events. Take, for example, Cape Keerweer (Turnagain) in the Gulf of Carpentaria, and Roebuck Bay, on which Broome stands. Keerweer is associated with the far-off, misty beginnings of Australian discovery, and picturesquely expresses the feelings of those gallant Dutch explorers who first essayed to examine that inhospitable shore. Roebuck Bay, too, is not a mere name capriciously given, but commemorates the presence on the Western Coast of that dauntless British sea-dog, Dampier. Roebuck is the name of the old warship which the Government assigned to him for his hazardous enterprise.

Then, again, glance at the names of the headlands and inlets along the Northern, Western, and South-western Coasts. This part of our geography is considered, as Dampier considered the coast, barren and uninteresting. It is, in reality, one of the most romantic pages in Australia's history. Why are so many names curiously foreign—Houtmann's Abrolhos, Dirk Hartog, Leeuwin, Vansittart, Arnheim, Duyfhen, D'Entrecasteaux, Naturaliste, Geographe, Gantheaume, Freycinet, Bougainville, Voltaire? And why are such names almost confined to those coasts? Are they not the permanent memorials to the hardy Dutch and French sailors who, putting their lives to the hazard, voyaged in frail barques on uncharted seas so as to make this Australia of ours known to the world? What a wealth of fascinating material is here for the teacher with imagination! Too often this commemorative aspect of geography is lost sight of. We do not perpetuate. We forget. That is why Kipling wrote "The Recessional." We shall forget again if we do not see to it that the right spirit is cultivated.

### The Spirit of the Geography Teacher.

There once dwelt in an ancient city an old man who had travelled far and wide and laid up great store of adventure by land and sea; and every day he went into the crowded market place, trying to make men listen to stories of the strange things that he had seen and heard in his wanderings. But each was taken up with his own business and pleasure, and could not waste his time on an idle teller of tales.

One day a rich merchant saw the old man seated in the midst of a crowd of boys and girls listening intently to every word that he uttered.

"'Tis well you have at last found an audience, father, that gives you the hearing you crave," quoth the merchant.

"Good sir," replied the old man, "there are no listeners like the young. Their generous hearts are free to enter into another's joy or sorrow; to them the world is still fresh and wonderful; they believe all and doubt nothing; they neither argue with me nor mock me, and I give them of my best. Will you not leave your merchandise for an hour, and, seated with these hopeful youths listen to my story, and become once more a child among children?"

(Introductory note to the story "The King and the Statue," from "The Pedlar's Pack," by Mrs. Alfred Baldwin. Publishers: W. and R. Chambers, Ltd., London and Edinburgh.)

### FIRST CLASS.

Graphic representation of sky changes.

Modelling geographical features of locality in sand.

Talks about children, animals, plants of Australia and other lands.



## SECOND CLASS.

Noting obvious effects of seasonal changes.

East and West as known by rising and setting sun.

Modelling locality continued.

Weather—hot, warm, cool, cold, dry, rainy, stormy.

Talks about children, animals and plants of Australia and other lands.

## THIRD CLASS.

The eight points of compass; direction of known places from school. Modelling hill, valley, river, lake, coastline, island; with frequent reference to familiar examples and to pictures. Seasonal changes.

Rough model and plan of school locality worked up by teacher and pupils together.

Talks, stories and readings on such topics as—

Whaling on the South Coast—The Killarney; The Tom Thumb—Bass and Flinders—Shaving the Blacks; Eyre and his faithful blackboy—Australian Bight; People of the frozen North; Esquimaux—Laplanders; Homelands of the lion, tiger, elephant, monkey—Visits to Zoo and local park; Where the migratory birds go—swift, snipe; Vesuvius; Read to Class "The Little Black Princess"; also "Ten Boys of Long Ago" and "Seven Little Sisters."

## FOURTH CLASS.

Operation of natural forces in school locality (wind, rain, running water, &c.), with modelling.

Recording weather changes, with occasional talks on the facts.

Modelling in playground, large map of Australia showing—

- (a) Main physical features,
- (b) States and their capitals,
- (c) Railway lines connecting capitals.

Reading map of Australia.

Central Australia.—Life of the people—Alice Springs and Macdonnell Ranges—The Overland Telegraph—How Goods are Carried—Camels—Compare with Sahara, Egypt, Arabia.—Aboriginals—How Water was brought to Kalgoorlie—Burke and Wills—Macdonnell Stuart and Central Mount Stuart. Teachers might consult Baldwin Spencer and Gillen's "Across Australia" and Mrs. Gunn's "We of the Never Never."

Talks, stories, readings on such topics as—

Cook, Columbus, Livingstone; Maoris and hot springs—Iceland and its geysers; The Desert—oasis, mirage, date palm, wind, caravans, (read Eothen, Kinglake); The Alps and St. Bernard Dogs; People of other lands—read lessons on Spanish children, Servia, a Burmese boy, in the "Children's Book of Moral Lessons," by F. J. Gould (Third Series); The Ocean—a few interesting facts and stories about its animal life—whale, shark, porpoise, turtles, seals, albatross, seagull; Pacific Islands made of bones, copra ("Forty Years on the Pacific," by Frank Coffee), &c.



## FIFTH CLASS.

Study of surrounding district with reference merely to interesting and important features—soil, rocks, timber; where local products are sent and places from which goods are received—final destination of former and original source of latter to be given, for example:

Coal: Cessnock—Newcastle—Valparaiso.

Tea: Darjeeling—Calcutta—Sydney—Newcastle—Cessnock.

Indicate on the modelled map of Australia main products and occupations with chief centres of population. Bring out in this way and by talks the outstanding characteristics of each State, thus:—

New South Wales: Sheep, coal, silver, wheat, butter.

Victoria: Relatively dense population—miscellaneous products—gold, wheat, potatoes,—irrigation.

Queensland: Cattle, sugar, bananas, gold, coal.

South Australia: Iron, vineyards, olives, copper, wheat.

Western Australia: Vast extent with meagre population—gold, cattle, pearling, timber, wheat.

Tasmania: Apples, potatoes, silver—tourist resort.

The Murray River and Tributaries, Hume and Sturt—compare with chief rivers of the world—the Mississippi, Amazon, Nile.

Mount Kosciusko and the Dividing Range—compare with Mount Everest and The Himalayas, Mont Blanc, and The Alps; famous passes; bring out the importance of rivers, mountain-ranges and passes.

Shape of the earth; oceans, continents, poles, equator.

Reading map of the world.

Weather recording continued: thermometer, barometer, effect of climate on life and productions.

Talks, stories, readings on such topics as—

Life on a cattle station; droving; shearing Australia's sheep; an artesian bore; a dairy farm and factory; a wheat farm. Vasco Da Gama—Cape of Good Hope; Magellan and Drake—Cape Horn; Bilbao and the Pacific—what the Spaniards discovered in South America—old civilisation—silver; La Perouse; Peeps at China, Japan, and Java; The Monsoon (read the Coming of the Monsoon in Ceylon—Herbertson's Descriptive Geography of Asia); wild animal life of Northern Australia compared with that of other tropical lands; put Barrier Reef in modelled map of Australia; how Australia received its name.

## SIXTH CLASS.

Australia and the Empire—

- (a) The most important commodities which Australia interchanges with other parts of the Empire.
- (b) The routes via Canada, South Africa and the Suez Canal—to be given as trips taken by the pupils.
- (c) The Naval Stations and their importance.
- (d) Special reference to a few of the leading cities of each important part of the Empire, the main occupations of the people and other aspects of great interest or importance.



The pupils should obtain their knowledge from books, magazines, papers, advertisements, shipping and railway companies' pamphlets, pictures, labels, postcards, lantern and stereoscopic views, graphs, visits to factories; and to be encouraged to keep scrap books containing illustrated clippings and organised in relation to each topic studied. Teacher will supplement by talks with aid of pictures, blackboard sketches &c. Map to be continually in use. Pupils to be trained to make their own notes. Comparison with Australia to be a regular feature of instruction, *e.g.*, climatic conditions in Canada, India, Australia: great wheat areas of same: Native races of the Empire compared, including those of New Zealand, South Africa, and South Sea Islands: Australia's Transcontinental and the Canadian-Pacific Railways. Great forests or jungles with constant reference to the animals, and frequent telling or reading of stories (Kipling, Thompson Seton, School Magazine).

Australian Geography to be revised in fresh connections, and extended. The Northern Territory and the far North-west (the Kimberley District). Darwin—Wyndham—Broome— isolation—occupations— cattle—mining—pearling—aboriginals—Japanese. Cable connection of Australia with rest of the world—Darwin—Sydney. How water was brought to Yanco. Jenolan Caves; Australia's night sky; Thursday Island and New Guinea; Newcastle: its industries and trades; areas and populations of the States compared—graphs.

The poem "A Song for the Inlanders of To-day" to be discussed and memorised (see School Magazine for June, 1921), also Dorothea Mackellar's "My Country," and similar Australian poetry. Read with class Mrs. Gunn's "We of the Never Never."

Weather recording continued—discussion to establish general ideas summing up the several years' records.

Zones, latitude, altitude, in relation to climate. Very simple treatment of evaporation and condensation. Simple experiments.

Talks, stories, readings, lecturettes—

The South Pole—Scott, Shackleton, Mawson, David, Amundsen; Ross Smith's flight from England, with sketch map of route and brief reference to countries in which descent was made; Hawker's unsuccessful and Alcock's successful flight across the Atlantic; great engineering achievements—Panama Canal, Assouan Dam, and Egypt—compare with Burren Juck; railways through and over mountains, *e.g.*, The Alps; railway from Valparaiso to Buenos Ayres; famous bridges—Forth; Tay; Hawkesbury; Niagara Falls and how the river is harnessed to industry; what Tasmania is doing; Victoria Falls; longest railway journey in the world (Paris to Vladivostock, cotton plantation in the United States; the rubber forests of Brazil; Jerusalem and the Holy Land—the Jordan and the Dead Sea—The Australian Soldiers (read "Eothen," Kinglake); Gallipoli, &c.

Comparison of Australia's area and population with those of other countries, *e.g.*, England, Belgium, United States, China, India, Japan, Java. Plenty of interesting arithmetical and graph work in connection therewith.



*Australian Books suitable for Geographical Section of the School Library*

Little Black Princess .. ..	Mrs. Gunn.
We of the Never Never .. ..	Mrs. Gunn.
Bill Bailey .. ..	Mrs. Ellis Rowan.
Dot and the Kangaroo .. ..	Ethel Turner.
The Camp at Wandinong .. ..	Ethel Turner.
Spirit of the Bush Fire (Parts 1 & 2)	Whitfield.
Bush Days .. ..	
Timothy of Bushland .. ..	Mary Grant Bruce.
Dick Lester of Kurrajong .. ..	Mary Grant Bruce.
Kur-bo-roo .. ..	Mary Grant Bruce.
King Bungaree's Pyalla .. ..	Mary Fitzgerald.
Legendary Tales .. ..	Mrs. Langloh Parker.
Australian Geography .. ..	C. A. Wittber (Rigby, Adelaide). Contains maps and illustrations.

*Universal Geography: Books Suited for School Libraries.*

A Nursery Geography .. ..	Dickson.
Kathleen in Ireland .. ..	McDonald.
Donald in Scotland .. ..	Dalrymple.
Ivan in Russia .. ..	Dalrymple.
Japan of To-day .. ..	Helen Jerome.
Children of Arabia .. ..	Young.
Children of China .. ..	Brown—Colin Campbell.
Stories from Longfellow .. ..	Doris Ashley.
The Snow Baby .. ..	J. D. Peary.
Highroads of Geography .. ..	
Peeps at Many Lands .. ..	
The Wonder Book of the Empire ..	Golding.
The Little Indian .. ..	
Narrative Geography Readers. (Parts 1 and 2)	Macmillan.
The World and its People .. ..	Nelson.
Ten Boys from Long Ago .. ..	Jane Andrew.
Seven Little Sisters .. ..	Jane Andrew.
Each and All .. ..	
Earth Knowledge .. ..	McDougall.
Great Cities of the World .. ..	McDougall.
All over the World .. ..	McDougall.
Many Lands and their Children ..	McDougall.
Tales of Old Time .. ..	McDougall.
Former Days .. ..	McDougall.
The Western World .. ..	McDougall.
The World .. ..	McDougall.
Lands and their Stories (whole series)	Blackie.



Famous Voyages of the Great Discoveries	Harrap.
The Children's Book of Moral Lessons (third series)	F. J. Gould.
Robinson Crusoe .. ..	Defoe.
Swiss Family Robinson .. ..	Wyss.
A Trip up the Nile .. ..	Eliot Warburton.
In the Forests of Brazil .. ..	Bates (Froude).
The Land of the Llamas .. ..	Hue (Froude).
Redman and Buffalo .. ..	Bell (Froude).
Just So Stories, Jungle Book, &c. ..	Kipling.

Selections from books for teachers, &c., &c.

The teacher of Australian Geography should be familiar with many of the following publications:—

Across Australia .. ..	Spencer and Gillen.
The Inlander .. ..	Magazine published by the Presbyterian Inland Mission Board, York-street, Sydney. Very valuable.
Australia Unlimited .. ..	Brady.
Across Australia in a Caravan ..	Brady.
We of the Never Never .. ..	Mrs. Gunn.
The Dreadnought of the Darling ..	C. E. W. Bean.
The Land of Pearl and Gold ..	Alexander McDonald.
Australian Byways .. ..	Norman Duncan.
Outback in Australia .. ..	W. K. Harris.
The Dead Heart of Australia ..	Gregory.
Round the Compass in Australia ..	Gilbert Parker.
Forty Years on the Pacific .. ..	Frank Coffee.
The Native Races of the British Empire: Australia	Thomas.
The Mocassins of Silence .. ..	Favenc.
The Bulletin Stories .. ..	The Bulletin Company.
Geoffrey Hamlyn .. ..	Henry Kingsley.
The Confessions of a Beachcomber ..	Bancroft.
When the Red Gods Call .. ..	Beatrice Grimshaw.
Australia To-day .. ..	Annual Magazine published by the Australian Commercial Travellers' Association.
The Journals and Proceedings of the Royal Historical Society of New South Wales.	Supplied to members. Annual subscription, 10s.
The Geography of Australia .. ..	Griffith Taylor.
Geography of New South Wales ..	Andrews.
The Year Book of Australia .. ..	Contains special articles of great value.
The Pastoralists' Journal .. ..	
Dalgely's Review .. ..	
Historical Maps of Australia ..	Bartholomew and Cramp.
Australia .. ..	Foster Fraser.



Australasia Illustrated.. ..		
Thirty Years in Tropical Australia ..	Gilbert White (Bishop of Willochra).	
Funafuti .. .. .	Mrs. David.	
My Tropic Isle .. .. .	Bancroft.	
New Zealand at Home .. .. .	R. A. Loughman.	
Through South Westland .. .. .	Moreland.	
Adrift in New Zealand.. .. .	Elkington.	
In the South Seas .. .. .	Stevenson.	
Ebb Tide, &c. .. .. .	Stevenson.	
Gleanings from Buddha Fields ..	Lafcadio Hearn (Japan).	
Kokaro .. .. .	Lafcadio Hearn (Japan).	
Kim .. .. .	Kipling (India).	
Captains Courageous, &c. .. ..	Kipling (India).	
The Land that is Desolate .. ..	Treves (Palestine).	
The Country of the Ring and the Book	Treves (Italy).	
The Other Side of the Lantern ..	Treves	
Uganda for a Holiday .. .. .	Treves	
Round the World on a Wheel .. ..	Foster Fraser.	
Pictures from the Balkans .. ..	Foster Fraser.	
Canada at it is .. .. .	Foster Fraser.	
America at Work, &c. .. .. .	Foster Fraser.	
Real Siberia .. .. .	Foster Fraser.	
The Shadow Show .. .. .	Curle (Universal Geog.).	
This World of Ours .. .. .	Curle (Universal Geog.).	
Vagabonding down the Andes ..	Franck.	
The Unveiling of Lhasa .. .. .	Candler.	
Tramps round the Mountains of the Moon	Modern Travel Series (T. Unwin Fisher).	
Tramps in Dark Mongolia .. .. .	Modern Travel Series (T. Unwin Fisher).	
Darkest Africa .. .. .	Stanley.	
The Surgeon's Log .. .. .	Abraham.	
The Innocents Abroad .. .. .	Mark Twain.	
Eothen .. .. .	Kinglake.	
The Lure of the Map .. .. .	James.	
Scrambles amongst the Alps .. ..	Whymper.	
Travels in North and Central China..	Birch.	
John Chinaman at Home .. .. .	Hardy.	
Japan .. .. .	Menpes.	
The Real Indian People .. .. .	Thomson.	
Java, Sumatra, and the Dutch East Indies		
A Journey to Java .. .. .	Weston.	
The Playground of the Far East ..	Mrs. C. Dauncey.	
An Englishwoman in the Philippines	Jack London.	
Call of the Wild .. .. .	Thompson Seton.	
Wild Animals I have Known .. ..	Butler (North Canada).	
The Great Lone Land .. .. .	Deane.	
Mounted Police Life in Canada ..	Gilbert Parker (Canada).	
Pierre and His People .. .. .		



The Crossing .. .. .	Winston Churchill.
From the Cape to Cairo .. ..	Grogan.
The Black Wolf's Breed .. ..	H. Dickson.
Travels in Tibet and Central Asia ..	Sven Hedin.
Life and Travels .. .. .	Mungo Park.
Man and His Markets .. .. .	Lyde.
Man on the Earth .. .. .	Lyde.
Geographies .. .. .	Herbertson.
Teaching of Geography in Elementary Schools	Archer, Lewis, Chapman.
The World and Australasia .. ..	Howarth, Herbertson, Griffith Taylor.
Pictures .. .. .	Black.
The Gateways of Commerce .. ..	Fairgrieve and Young.
Romance of Commerce .. .. .	Newland.
Across Europe in a Motor Boat ..	Rowland.
The Home of the Blizzard .. ..	Mawson.
England .. .. .	Frank Fox.
Switzerland .. .. .	Frank Fox.
A Poet's Pilgrimage .. .. .	Davies (Wales).
Through Spain .. .. .	Dickinson.
Home Life in Norway .. .. .	Daniels.
Russia: The Country of Extremes ..	Jarintzoff.
Vagabonding through Changing Germany	Franck.
A Wanderer in London .. .. .	Lucas.
"    "    Paris .. .. .	Lucas.
"    "    Holland, &c. .. ..	Lucas.
The Sea and the Jungle .. .. .	Tomlinson.
The Prowlers—Stories of Birds and Beasts	St. Mars.



## NATURE STUDY AND SCHOOL AGRICULTURE.

The Syllabus must be read in conjunction with the notes.

*It is not desired that any teacher should undertake all the work outlined in the following courses in Nature Study and Agriculture. A selection should be made suitable to the locality and general conditions. Work, however, should be done from as many sections as the teacher is capable of treating effectively, and the location of the school admits, the work from the different sections being taken concurrently. Nature Study is not to be dissociated from School Agriculture.*

The school garden, both flower and vegetable, furnishes an opportunity for doing effective work. An ill-kept and ill-arranged school-garden does not develop in the pupil a desire for the æsthetic, and an agricultural plot that produces nothing of value, and Nature Study that does not lead to an intelligent appreciation of nature, do not carry out the aim of the work. All that is done should be thorough and effective. Plants and insects mentioned in the Syllabus are suggested types, the teacher is at liberty to substitute any suitable and available forms of insect and plant life.

In the lower classes appropriate stories and poems will add much interest to the work.

Suitable stories will be found in the following books :—

Barrie	...	...	The Little White Bird.
Howes	...	...	Sun Babies.
White	...	...	The Magic Forest.
Graham	...	...	Wind in the Willows.
Kingsley	...	...	Water Babies.
Kipling	...	...	Jungle Books.
Kipling	...	...	Just So Stories.
Gunn	...	...	Little Black Princess.
Parker	...	...	Legendary Tales.
Carroll	...	...	Alice in Wonderland.
Browne	...	...	Rab and his Friends.
Seton	...	...	Wild Animals at Home.
Stevenson	...	...	Child's Garden of Verse.
C. Rossetti	...	...	Selections.
Eugene Field	...	...	Selections.
Blake	...	...	Sons of Innocence.
Longfellow	...	...	Hiawatha.
Molly McNutt	...	...	Songs of Bushland.
Allen	...	...	Songs.
Wordsworth	...	...	Selections.

In a Nature Study course first hand knowledge on the part of the pupil is required at all stages. One of the aims of Nature Study is the cultivation of a habit of inquiry. This cannot be done by *telling* the child about the wonders of the world surrounding him, but by teaching him to discover some of them for himself. Let the child discover by observation and experiment that a plant is a living thing which grows, feeds, breathes, moves, and performs other vital functions, and then go on to discover how the form and structure help it to live its life. In doing this, the child is not only gaining a knowledge of his own environment, but also leading to appreciate beauty—the beauty of form, colour, and perfect fitness.



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Nature Study should not be merely a study of elementary botany or zoology.

The work should present itself as a series of problems to be worked out by observation, experiment, and deduction.

If the seasonal changes are properly studied beforehand the teacher will be able to arrange a suitable course of work for the year.

The teacher should bear in mind that it is the pupils who are to discuss the subjects, make observations, and discover facts. The teacher's work is not primarily to give information but to guide, to indicate ways of approach, and to supplement the knowledge gained by pupils themselves.

The methods of attack may be divided as follows:—

- (a) General observations.
- (b) Specific investigations and
- (c) Class discussions.

The making of records and drawings is important, and here the Nature Study may be correlated with English and Art work.

An aquarium and a vivarium are very desirable things in the equipment of every school.

Excursions are an essential part of a Nature Study scheme, but an excursion should not be merely a pleasant ramble. It should have a definite object. Pupils should be encouraged to make excursions on their own account out of school hours.

The cultivation of flowers is possible in every school. If soil is suitable, flower-beds may be set in the open, if unsuitable, a 'bush-house' may be constructed or flowers grown in pots or boxes on the school verandah or protected parts of playground, or window gardens, both indoor and outdoor, may be utilised for growth of suitable plants.

The flower garden should be tastefully laid out. The gardens should be disposed so as to secure the end aimed at, *i.e.*, the beautification of the school ground, and the development in the pupils of a desire for beautiful surroundings.

Rockerries may be built and such hardy plants as cactus, pig face, stone crop, &c., may be grown.

A school record should be kept showing—

- (a) work done.
- (b) measure of success or failure achieved under prevailing conditions.
- (c) the means adopted to ensure success against unfavourable conditions.
- (d) experiments in improving the blooms, *e.g.*, pruning, budding, grafting, hybridizing, manuring, &c.
- (e) Preparation of seed for planting.
- (f) Collecting seed ;
- (g) And any other interesting and important features of work done.

In small schools the teacher should make a selection of work from the syllabus for Infant and Third Classes for the Lower Division, and from that of Fourth, Fifth, and Sixth Classes for the Upper Division. The work in each succeeding year should, introduce, as far as practicable, new features.

**NOTE:** Infant Classes.—Lessons should be from ten to fifteen minutes in duration. A few minutes daily or at intervals during week spent in discussion of any change in each particular object under observation should be sufficient.

*Third to Sixth Classes (inclusive).*—Time to be devoted  $1\frac{1}{2}$  hours per week.



**NATURE STUDY AND AGRICULTURE.**

- (1) Plant Life.
- (2) Animal Life.
- (3) Human Interests and Activities.

**INFANT CLASSES.**

**1. Plant Life.**

Primary children being interested in whole objects rather than in parts, the more detailed study must be left to the more advanced grades.

(a) *Flowers.*

*Cultivated.*—Acquaintance with the most commonly grown flowers, in the home and school garden, as geranium, nasturtium, snapdragon, sweet pea, petunia, pansy, &c.

*Wild.*—Acquaintance with such native flowers as—flannel flower, native rose, waratah, wattle, &c. The native flower in blossom during dry season. Plants which come back to life with the rainy season. Collect seeds of a few to plant in the school garden.

(b) *Plants.*

*Garden.*—Talks in simple language about kinds of plants grown in the flower garden and vegetable garden. The uses of these plants. What helps the plants to grow? The care of the plant. Children to collect a few seeds for their home gardens. The egg-shell garden appeals to children of this grade.

(c) *Trees.*

*Fruit Trees.*—Name the various kinds growing in the neighbourhood. Which trees retain their leaves throughout the winter? Watch for the appearance of the blossom. Each child to describe its favourite fruit tree and fruit. Allow the children to bring to school the best peach, pear, apple, orange, &c., grown at home. Talk about the points of excellence in form, colour, and flavour.

*Ornamental or Shade Trees.*—Identification of those commonly grown in the gardens and district. What is interesting about the common ones? Why protect the trees? Colour of foliage in Spring and Autumn.

**2. Animal Life.**

(a) *Domestic Animals.*—Name the animals of the farm. The pets of the household, &c. Children to talk about the care of animals, the service they render to man. Create appreciation of the best in animal life.

(b) *Wild Animals.*—Name those found in locality. Which are injurious to farmer, and how?

(c) *Birds.*—Name birds present when school opens. Which have gone? Which come with the opening of spring? Which go with the advent of winter? Make simple observations of the most common birds during the year. Create in the child a desire to know more about bird life.

(d) *Insect Life.*—Interest the children in such insects as butterflies, moths, bees, dragon-fly, mantis, &c. In a general way have the child to know a few insects injurious to garden, field, and orchard.



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### 3. *Human Activities and Interests.*

Informal talks about their homes and their home gardens, the surroundings of the house, the lawn, the trees.

Play activities of children at home. What things can children do to make the school and ground wholesome and attractive.

- THIRD CLASS—(1) Plant Life.  
(2) Animal Life.  
(3) Physical Phenomena.  
(4) Human Interests and Activities.

#### 1. *Plant Life.*

- (a) *Garden.*—Simple observations of germination, growth and development of plants as pumpkin, cucumber, pea ; wheat, maize.

Name different plants growing in the garden. Study the habit of growth. When was the seed sown? What care has plant received? Gather some seeds and save for planting next year. Observe the germination, growth and development of such plants as cabbage, radish, lettuce, carrot, &c. What are the vine crops in the garden? Observe their habit of growth. Emphasise two vegetables and two flowers grown at home, the products to be exhibited at school. Children may plant sweet peas or a vine to cover fence or screen outbuildings.

- (b) *Window Garden.*—Children should help to make the window garden in the school room. Have preparatory talks on kind of box, the soil, best seed to plant and best plants to grow,

- (c) *Fruit.*—Name the different fruits grown in the district. How can different kinds of fruit trees be recognised when there is no fruit on them? Watch the blossoms and their visitors. What are the injurious insects?

- (d) *Native trees.*—Choose a clump of trees and find out all the interesting things possible, as height, shape, manner of growth, colour of leaves, limbs and bark, shape of leaf, the flower, &c. What wild flowers are in blossom when the school opens? What ones have gone to seed? Collect a few seeds. Make artistic bouquets of wild flowers and show how colours harmonise. Which ones blossom first in spring? Keep a wild flower calendar. Encourage children to start a wild flower garden.

- (2) *Shade Trees.*—The need of these on school ground. Most suitable trees to plant. What are the principal shade trees in the locality? Do leaves stay on all year round? How many of the trees have blossom?

#### 2. *Animal Life.*

- (a) *Domestic Animals.*—Name farm animals. What does each do? What does each animal eat?

- (b) *Wild Animals.*—What are the wild animals in the locality? How do they live? Where do they spend the winter? Which are injurious to the farmer?



## NATURE-STUDY: SCHOOL AGRICULTURE. 125

- (c) *Birds*.—What birds are present when school opens? How do you recognise different birds—colour, song, size, and manner of flight? What is food of birds? Name various places where birds build their nests. Watch them building their nests, feeding, and teaching young to fly. Keep a bird calendar noting useful birds.

(d) *Insect Life*.—Note any insects on plants in the garden. What is the food of these insects? Note the mouth-parts. Work out the life history of two or three of them.

### 3. *Physical Phenomena*.

*Weather*.—Keep a monthly calendar noting days of sunshine, rain, occurrence of frost, temperature, direction of wind.

### 4. *Human Interests and Activities*.

*Seasonal Activities*.—Kind of work carried on on the farm or garden throughout the year. Preparation of home and school garden.

FOURTH CLASS—(1) Plant Life.

(2) Animal Life.

(3) Soil Studies and Physical Phenomena.

(4) Human Interests and Activities.

#### 1. *Plant Life*.

- (a) *Garden Studies*.—Make a list of all vegetables growing in the school garden and home gardens. What parts of vegetables are used for food? What vegetables remain in garden during winter, spring, and summer? Discuss preparations for garden work in spring. Plant quick-growing vegetables as bean, pea, radish. Observe germination and growth. Study the tomato and potato. Have several varieties of tomatoes growing in the garden. Study characteristics of a good tomato. Grow a few varieties of potatoes. Study colour of skin, shape, eyes, &c.

Climbing plants. Their value about the school and home, manner of growth, &c. Wisteria, ivy, and ficus make good types. What kind of stem? How does it hold on to things? Note position of flowers. Have a window garden in schoolroom. Have several flower boxes. Grow geranium slips and sow nasturtium seeds.

Simple observations on the germination, growth and development of plants growing in garden as snapdragon, daisy, pansy, dahlia, petunia, nasturtium, &c.

- (b) *Wild Flowers*.—Enumerate wild flowers of the district. Those in blossom during spring and summer months. Collect wild flower seed for spring garden work. Arrange flowers for artistic mass effect in vases or flower holders. Teach harmony of colour. Apply also to cultivated flowers.
- (c) *Seed Germination*.—Simple experiments to illustrate necessary conditions to grow seed.



2. *Animal Life.*

- (a) *Insect Life.* Name insects seen during first month of school.  
Have children watch for caterpillars. How do they eat? What is their food? How many legs? How many pro-legs? Follow out life-history of at least two. What insects appear first in spring? Which ones are destructive to fruit and crops? Notice difference between a biting and a sucking insect. Make list of such insects.
- (b) *Bird Life.*—What birds remain all the year? What birds destroy insects and grubs? Make special study of a bird common to the locality. Where it builds its nest, where it feeds, its disposition, &c. Try to identify birds by manner of flight. Observation of nest-building and care of young.
- (c) *Domestic Animals.*—Review work and worth of common domestic animals.  
*The dog.*—Its habits, wild relatives, &c.  
*The cat.*—Its habits, wild relatives, &c.  
*The hen.*—The egg, size, colour; chickens, their food, care, and enemies.
- (d) *Wild Animals.*—Name all found in locality. Any injurious to cultivated crops? In what way? How exterminated? Make special study of rabbit, its food, manner of life, appearance, value, &c.

3. *Soil and Physical Phenomena.*

- (a) *Brook and the Soil.*—Study of small stream and its work. Character of course. Causes of differences in colour of water at various times. Look at pebbles in brook. Study of the work of a brook. Erosion.
- (b) Record daily temperatures, and keep a weather calendar.

4. *Human Interests and Activities.*

Seasonal activities. Harvesting. Discuss work being carried on to harvest crops of field, garden, and orchard. Changes in weather related to human comfort as to clothing, food, shelter.

FIFTH CLASS—(1) *Plant Life.*

- (2) *Animal Life.*  
(3) *Soil Studies and Physical Phenomena.*  
(4) *Human Interests and Activities.*

1. *Plant Life.*

- (a) *Garden Studies.*—Plans for home and school garden. Mistakes made last year and how to avoid them. Grow several varieties of vegetables as pumpkin, cabbage, radish, lettuce, &c., and determine the most desirable.



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- (b) Grow *corn* or suitable substitute. Examine seed. Discuss preparation of soil and time to plant. Watch its growth. Report when first leaf appears, when tassel appears, when silk appears, height and thickness of stem, appearance of adventitious roots, size and colour of leaves. Ascertain number of ears on stalk. Study cob and grain. Study damage done to corn by insects. Name and record insects.
- (c) Grow *sunflower* or suitable type. Study entire plant as it grows in garden. Go into details as to colour, character of stem, leaf, and flower. Watch bees on sunflower head. Treat similarly any other flower.
- (d) *Bulbs*.—Have a bulb garden on school ground, or an indoor bulb garden. Best time and methods of setting bulbs. Study narcissus, daffodil, crocus, &c. Factors of success as proper location of bulb bed, character of soil, preparation of soil, use of well-rotted manure, depth of planting, &c. *Study of Onion. Study of Dahlia.*
- (e) *Wild Flowers*.—Study of parts, stem, leaf, bud, flower, seeds of wattle, flannel flower, waratah, or suitable type.
- (f) *Weeds*.—What is a weed? Way in which weeds are injurious. Dispersal of seeds. Make a list of weeds growing in the locality. Study the habit of each weed.
- (g) *Orchard Trees*.—Trunk smooth or rough. How are branches arranged? Shape of tree. How are buds arranged? Is tree deciduous? After flowers have disappeared watch development of fruit.

### 2. *Animal Life.*

- (a) *Insect Life*.—Watch for insects in garden. Make special study of ladybirds or available substitutes. Describe their appearance and size. Search for eggs. Appearance of larvæ and pupæ. What is life history of ladybird? Study home-making insects—as bee, ant. Watch bees at work on flowers. Study the bug of the tomato plant, the aphid on the rose or on the cabbage.
- (b) *Bird Life*.—Select three or four birds for detailed study, noting size, colour, special markings on head, breast, wings, tail; general shape of body; character of bill; tail forked, square, fan-shaped, notched; movements, hop, walk, &c.; manner of flight, steady, quick or slow, flapping, &c. Food, and how procured. Character of song and call-notes. Domestic birds, as fowl, duck, turkey; different varieties.

### 3. *Soil Studies and Physical Phenomena.*

The thermometer. Its use. Record daily temperature, and keep a weather calendar.

*Rocks*.—How soil is derived from rocks? What makes rocks decay? How different soils are made out of limestone, basalt, granite, sandstone.

### 4. *Human Interests and Activities.*

*Season Activities*.—Describe cutting of lucerne, harvesting of wheat. Best time to prune and spray orchard.



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- SIXTH CLASS—(1) Plant Life.  
(2) Animal Life.  
(3) Soil Studies and Physical Phenomena.  
(4) Human Interests and Activities.

### 1. *Plant Life.*

Teacher to demonstrate simple methods of propagation as :—

- (1) Cuttings, geranium, rose, grape, &c.
- (2) Grafting.
- (3) Budding.

Make arrangements with a successful local farmer or orchardist to give a practical demonstration.

According to locality make a choice of two of the following :—

- (a) *Fruit Blossoms.*—Study blossoms of common fruit trees in neighbourhood. Shape of bud, position on tree, note changes as bud opens. Do leaves and flowers come from same bud? Difference between leaf, bud, and fruit bud. Describe the open blossom, sepals, petals, colour, shape. Do fruit blossoms close at night? Insects visiting blossoms. When do the petals fall? What is left? What part of flower develops into fruit? Study the blossoms of pear, or apple, and then compare with blossoms of peach, plum, apricot, cherry, &c. Study of fruits. Study of characteristics of pea family, cabbage family, grass family, &c. Grow specimens in garden.
- (b) *Growth and Study of Corn.*—What varieties are grown in district? Its use. Study of plant in detail. Characteristics of root. Kind of root. The stem nodes and internodes. The leaves, arrangement on stem. Flowers, the work of the tassel, the silk, pollination. Improvement of corn plant by selection and breeding. Study of cob and the grain. Selection of seed.
- (c) Grow and study wheat or any cereal. Varieties of wheat raised in district. Have samples in class-room. Study of wheat plant. Characteristics of stem. The leaf. The root system. Study of the head. Note and describe rachis, spikelet, gume, &c.
- (d) Study of forage crops as grasses, root crops, legumes, make a detailed study of lucerne, or cowpeas, or clovers, or root crops for feeding live stock, as turnips, &c.
- (e) *Plant Communities.*—(Including useful plants, weeds, &c., i.e., a society of all those plants growing on a specified area). Character of individual plant. How it grows. Factors necessary for plant growth. Plant environment. Pupil to study plant communities in garden, orchard, lawn, fields, &c. Note the insect life found in connection with the different plants of the community. How does man control the plants of the community?
- (f) *Seeds.*—Simple study on purity of seeds. Make tests for purity and germination capacity. Separate all foreign seeds found in sample, and grow in a special pot. Grow tested seed in school garden. Study grain of wheat, barley, oats, rye.
- (g) *The Flower Garden.*—Grow and study the following plants—fuchsia, pansy, violet, dahlia, rose, chrysanthemum, &c. Value of such as ornamental plants.
- (h) *Vegetable Garden.*—Grow and study biennials as beet, turnips, carrot, parsnip, &c.



2. *Animal Life.*

A. Two or more may be chosen.

- (a) *Dairying*.—Economic importance of cow. Different breeds. Good points of each. How to increase efficiency of cows, better care, better feeding, better breeding. Sanitary production of milk. Various uses of milk. Milk testing.
- (b) *Poultry*.—Special study of hen. Points of a fowl. Egg production. Housing. Feeding. Care of chicks.
- (c) *Pig*.—General characteristics. Different breeds. Habit and food.
- (d) *Horse*.—Points of a horse. Breeds of horses. Care, &c.
- (e) *Sheep*.—Breeds of sheep. The Merino. The wool type. The mutton type.
- (f) *The Bee*.—The hive. The queen; the worker; the drone. How to start bees. Swarming, &c.

B. *Insect Life*.—Study of insect life to be made in connection with plant study. The success of a crop may depend upon its insect enemies. The plant life in any locality must guide the selection of insects for study. Study life history, habits, food, of such insects as grasshopper, plant bug, scale insects (as Indian Wax Scale, Cottony Cushion Scale, Scale of Citrous, &c.), aphids, pumpkin-beetle, lady-birds, &c.

3. *Soil Studies and Physical Phenomena.*

Character of Earth's Crust. Agencies of Soil formation.

General classification of soils. Leading types of farm soils, garden soils. Soil, water, air, and temperature.

4. *Human Interests and Activities.*

*Calendar of Farm or Garden Operations*.—Enumerate agricultural activities of district. Report on present condition of crops. Estimated yield and actual yield. Climatic and soil conditions. Problems of marketing. Special needs, as irrigation, drainage, transportation.

*Social Interests*.—Any Improvement Club or Agricultural Club, as Corn, Pig, Calf Clubs?



## HYGIENE.

## Prefatory Notes.

Instruction in Hygiene in the Infants and Primary Schools is concerned with *doing* rather than with talking. Two main objectives should be kept in view—

1. To create in the children the desire for good health.
2. To form habits which will largely contribute to good health.

Good habit in personal and environmental cleanliness, rest, regular and proper food is to be acquired only by daily practice in all that concerns these important matters.

The teaching, then, must be definite and positive, with adequate provision for specific activities which will make the work interesting and self-expressive. Effective correlations with other subjects—physical training, art, manual work, domestic science, civics and morals, music, speech, writing—should be made.

The aim of the teacher should be directed towards helping a child to be capable and critical in performing for himself those daily acts of care and attention to personal cleanliness, neatness, and pleasing appearance for which hitherto he has been so dependent on parents and other people. The self-reliance and self-respect are the outcome of freedom from dependence in these matters.

The help and co-operation of parents should, at all times, be sought, especially in those cases in which the child's effort is frustrated by unfavourable conditions in the out-of-school life.

For a certain number of hours per day the teacher is the guardian of the child's welfare, as well as his instructor. He should, therefore, be sufficiently acquainted with matters of child hygiene to direct the recurrence of work, rest, and play, to discuss with the parents some of the child's disabilities in learning—defective hearing or vision, nerve strain, malnutrition, overwork out of school hours, and to observe the symptoms of the more common childish ailments and notify the parents at once.

In every school a small collection of first-aid requisites—lint, cotton wool, clean bandages, toothache cure, sticking-plaster, dusting powder, needle and thread, scissors, should be made. A small Red Cross cabinet simply made to hold materials should be part of the community work of the school. Children should be taught how to sterilise a needle before removing a splinter, and scissors and other appliances before using them.

The interest of the child in the maintenance or improvement of his own health may be awakened and sustained by the keeping of individual health records.

The monthly record of weight, when obtainable, should be carefully watched, and variations noted, and their causes—injudicious or insufficient feeding, insufficient rest or fresh air, minor ailments, diagnosed with a view to seeking a remedy.

The personal record should be kept by all children who are old enough to do so. The aim is not to make them competitive in increasing their weight, but to discover what is a normal weight for age, and seek to maintain that.

In the case of young children, periodical weighing—once a month—should be the responsibility of the parent, with whom the teacher will consult when necessary.

The maintenance of a sufficient supply of fresh air and of well-ordered conditions in the class-room is very vital to the health of its occupants—teacher and children. Daily attention, morning and afternoon, should be



given to class-room ventilation, neatness of arrangement, preparation of material for work, and careful putting away under the supervision of the teacher when the day's work is done. To secure suitable light windows should be freely opened to permit the inflow of a good current of air. Window blinds should be drawn only against direct sunlight.

The class time-table should show one "house-keeping" period in the week—preferably during the last hour on Friday—in which selected squads of children might undertake the necessary duties of class-room hygiene—disposal of useless material as worn-out charts and other things that are of a temporary nature and have served their purpose, re-arranging pictures and presses, washing blackboards and chalk rails, preparing pencils, pens, and books for the coming week's work; feeding and attending to the cleanliness of fish and other live Nature study specimens.

Although the work of house-keeping is generally thought to be the special function of girls, that art, as it concerns the upkeep of well-ordered conditions for learning in the class-room, is equally the responsibility of boys. As boys in general have little, if any, practice in this way, the necessity for daily instruction and practice in healthfulness and good order of their surroundings is even more insistent.

When teacher and children realise that school life may be made so much happier and more pleasant by regular and particular attention to those matters of hygiene which are within their own control and responsibility, they will find that some, at least, of the conditions so adverse to elementary education will disappear.

### Infant Schools.

#### *Children of 6 years old and under.*

The usual activities of the Kindergarten and Montessori methods will furnish the means for the greater part of the foundational training in this subject. But in addition to the well-known exercises so widely practised, certain definite training in **habits** of cleanliness, of eating and drinking, of play and of life generally should be given.

The topics suggested for talk and practice should be approached through play and other forms of activity appropriate to young children.

#### 1. *The Body—Conversation about it—*

Touching and naming its parts as—Head, hair, face, eyes, ears, nose, mouth, teeth, tongue, lips, cheeks, chin, neck, arms, hands, fingers, nails, wrists, legs, knees, feet, ankles, toes, nails, heels, shoulders, chest, and hips.

*Sense organs.*—Eyes for seeing; ears for hearing; nose for breathing and smelling; tongue for tasting and talking; nerves for feeling. Corresponding references to other parts and their uses—hands for holding and working; feet for walking, running, hopping, jumping; voice for singing and speaking.

In learning the parts of the body, their movements and uses, touching and naming should be varied or accompanied by other forms of impression and expression—dramatic interpretation, singing, games and other play.

#### 2. *Sense and Muscle Training—*

*Seeing.*—Watching the "Light Bird" (indoors), watching the cloud formations, movements of trees and flowers in the wind and sunshine. The flight of birds (out of doors). Sorting and arranging colours, shapes, and sizes of various things.

Imitating precisely actions or marks made by the teacher or other children.



*Hearing.*—Listening for sound, inhibiting sound as in silence period, reproducing sound in speech and song. Distinguishing voices, and typical sounds; noting differences in pitch, degree, and quality of sounds.

*Touching.*—The feeling exercises as set down in the Montessori method.

*Smelling.*—How to smell (nose not too near) distinguishing different perfume of flowers; flavours of food. Water—no smell; avoiding disagreeable smells, as gutters, drains, gas pipes (never to play near).

*Tasting.*—Distinguishing the taste of the more commonly known foods (never to put anything into the mouth but proper food and drink).

The exercises in sense training are the ordinary sense games, specific sense-training exercises of the Montessori method; and impromptu plays as occasion suggests.

### 3. *Cleanliness* of person, clothes, and surroundings—

The practical life Exercises of the Montessori method, through which a child is taught how to wash and dress himself; brush hair and teeth; take a daily bath; attend to personal needs, and help in the cleanliness and neatness of the children's house.

The upkeep of the doll's corner also affords a motive for attention to these details.

### 4. *Food*—

Children should be taught to have their luncheons properly protected in bags or boxes which are kept scrupulously clean, to place them neatly in the cupboard or on the shelf; to eat properly; to drink at the right time and from the right vessels; and to wash before and after handling their food.

Special instruction and much repetition in precept and practice are needed in the following details:—

1. To have a handkerchief, to use it for one purpose only; and to keep it from loss or contamination in a small bag or pocket.
2. To avoid play near drains, gutters, culverts, and other unwholesome or dangerous places.
3. To avoid putting money, pencils, or other harmful things in the mouth, or drinking from any other vessel than a clean cup, mug, or glass.
4. To keep flies from touching any part of the body and to protect any sores or cuts by proper bandages.

## FIRST AND SECOND CLASSES.

The work of the Kindergarten should be continued, but, as the children are now a little older, more robust in out-of-door play, and a little more self-dependent at home, more detail will be necessary.

1. The parts of the body, their powers and uses. A little wider application of the knowledge gained in Kindergarten.

### 2. *Cleanliness*—

(a) *Of person.*—Taking a daily bath; cleaning teeth; brushing hair, and having it regularly washed and cleaned; washing ears and neck; bathing eyes and keeping hair out of them; cleaning nails and having them regularly cut; carrying and using a handkerchief, keeping it from being lost or soiled. Having one's own towel, soap, tooth-brush, brush, and comb.



- (b) *Of Clothes.*—Keeping clothes clean, putting them on neatly, and keeping them fastened. Wearing boots to protect the feet. Wearing hats to protect the head. Keeping dry in wet weather. Changing clothes frequently.
- (c) *Of Surroundings.*—Neatness, order and cleanliness in work and in the class-room generally. Regular washing of the hands after chalk and plasticine and before using paper and books. Prevention of chalk dust in the room. Necessity for cleanliness in playground, lavatories, and outhouses; definite teaching and strict supervision. (Housekeeping period at the end of the week for attention to all matters of class-room hygiene.)
- (d) *Food.*—Cleanliness in handling—washing hands and face before eating it. Never to eat unripe or decayed fruit; keeping lunches in properly cleansed bags and boxes and in the right place. Keeping flies from touching ourselves or our food. Destruction of flies. How to eat, what to eat, when to eat. How to drink, what to drink, when to drink. The simple rules for health and courtesy in these matters.

### Sense and Muscle Training.

The sense games and exercises of the Kindergarten continued and extended in matters relating to the Hygiene of Instruction. The simple eye movements as hitherto given; eye movement without movement of other parts—to close and open eyes, without screwing or wrinkling the face, or covering with the hand; looking down to read or write without lowering the head or stooping—accurately observing and imitating process as it was seen. Careful listening; observing and imitating inflections of the voice; consciously controlling the speech mechanism to produce the sounds heard; practice with the voice in intensifying and lessening sound; creating an entire absence of sound and appreciating the silence. Response to whispered sounds; and to order by lip movement. Conscious control of the body, limbs, and head in standing to speak, read, or recite. Exercises in poise and balance—walking with book on the head; walking along a plank laid flat on the ground, erect, with eyes straight in front.

Tactile-muscular training in holding and driving the pencil or pen; relaxing the grip and lessening the pressure; making a continuous forward movement. Rhythmic writing.

The Hygiene of posture, eye, and hand in writing in desks or at blackboard.

### Correlations.

*With Action.*—As in the application of instruction to daily practice.

*With Art.*—As in drawing or modelling any of the implements or activities of personal or domestic cleanliness.

*With Handwork.*—As in poster work, cutting out, arranging, and illustrating; in making towels, "tidies," working aprons, washers, bandages, dusters.

*With Language.*—As in recitation, reading, and writing. Story mottoes, rhymes, memory lines, and blackboard notices.

*With Dramatic and Musical Expression.*—In impersonation, song, and rhythmic movement.

*With Civics and Morals.*—Cleanliness and health in the individual extend to the street, locality, public vehicle, and public places. Cleanliness of person promotes good behaviour, good manners, and clean thoughts.



**Some Suggestions as to impressing the Simple Rules of Health.**

Daily examination, criticism, discussion, and encouragement of effort.

Daily repetition in reading, writing, or reciting memory lines, mottoes, and verses.

Co-operative work in making posters.

**Some Specimens.**

I use my toothbrush twice each day,  
To drive the toothache germs away ;  
I clean my nails, and brush my hair,  
And dress myself with greatest care.

DON'T

sit on damp grass.  
wear damp clothes.  
breathe with your mouth open.  
eat bad or unripe fruit.  
eat quickly.

TAKE CARE

to look where you are going.  
to stand straight on both feet.  
to eat slowly and chew thoroughly.  
to go to bed early and get up early.

I MUST NOT

spread disease by coughing,  
sneezing, or spitting, without  
covering my mouth with a  
handkerchief, nor talk or  
laugh with food in my mouth.

*Motto.*—To make a good day, we must have work, rest, and play.

*Memory Line.*—Do not run with sticks or other sharp things in your hand. If you carry knitting needles, pencils, or sticks, hold the points downwards.

**THIRD CLASS.**

Continue and extend the work of Second Class—

*Topics*—1. The body and its parts.

2. Cleanliness of person, air, food, clothes, and surroundings.

3. Exercise, rest, and sleep.

4. Recognition and avoidance of common dangers to health.

1. *The Body*—

Name, location, and work of the head, trunk, limbs, brain, heart, lungs, stomach, and bowels.



2. *Cleanliness*—

(a) *Of the person*.—The daily bath, the periodic hot bath.

Rubbing the skin to stimulate circulation.

Care of the eyes, ears, nose, mouth, and throat.

Care of the hair, regular washing, daily brushing, for removing dust, rubbing the scalp and stimulating growth.

Proper and regular cleansing of brushes (hair brush and tooth brush).

(b) *Air*.—Need for continuous supply of pure air day and night.

Correct breathing—inhalation and exhalation through the nostrils only.

Ventilation in home and school; free currents of air in and out of the room.

Sleeping with windows open; outdoor sleeping.

Fresh air and sunshine the best doctors.

(c) *Food*.—Its use for growth and repair of the body; need for simple mixed diet.

Simple and wholesome drinks—pure water, milk. (The latter a perfect food as well.)

Cleanliness in handling food—in transit from suppliers to the home; in the home; and at school.

Luncheons at school—proper storage, distribution, and cleanly habits in eating. When, how, and what to eat.

Good manners at table.

(d) *Clothes*.—Frequent changes of underclothing. Seasonable woollen clothing, removable and washable linings to dark woollen clothes—especially for boys. Importance of maintaining the right degree of warmth in the body. Dangers to health arising from insufficient or damp clothing, tight elastic and other bands, overheating and chill.

(e) *Surroundings*.—Cleanliness, neatness, and order in home, school and locality (personal and civic duty). The home and school garden as an opportunity for healthy outdoor work, and a means of beautifying one's surroundings.

3. *Exercise, rest, sleep*—

Work and play as exercise.

Ways of resting—change of work, repose.

Sleep—early hours. Early to bed and early to rise, &c.

4. *Common dangers to health*—

Catching colds. Stagnant air.

Using other people's towels, brushes, handkerchiefs, drinking cups, &c.

Flies and mosquitoes—carrying infection.

Sneezing and spitting (spreading disease).

Injurious food—green and decayed fruit, rich food, too much tea and coffee, avoidance of lollies and chewing gum.

Being in too close contact with sick people.



## FOURTH CLASS.

Work of previous years continued and extended.

*Topics*.—1. The body and its parts.

2. Cleanliness of person, air, food, clothing, and surroundings as in other classes.

3. Exercise, rest, and sleep.

4. Recognition and avoidance of common dangers to health (of self and family).

1. *The Body*—

Muscles and nerves in relation to the ordinary activities of children.

Simple facts of respiration, digestion, and excretion. The view of the body as the house we live in with its special needs as to these three functions.

*Respiration*—nasal breathing, necessity for, and the way to secure full inflation and deflation of the lungs.

*Digestion*—proper mastication and swallowing; regular meals; what to eat to keep the digestion sound; avoiding unripe, decayed, or unwholesome—that is unclean or badly cooked—food.

*Excretion*—the functions of the skin, lungs, bowels, and kidneys in cleansing the body of waste matter. How these may be assisted by—

(a) Daily bathing, exercise, rubbing.

(b) Clean air, correct breathing, good posture.

(c) Regular habits, good food, copious drinks of pure water. The free use of vegetables, fruit, and water as Nature's cleansers.

3. Exercise, rest, and sleep as for 3rd Class.

4. Recognition and avoidance of common dangers to health of self and family.

(a) *Personal dangers*—as in 3rd Class.

(b) *The Baby*—Carefully minding baby brother or sister—holding, carrying, feeding, amusing, preventing injury, and *immediately reporting to mother falls and other accidents*. Dangers of fire and scalding.

(c) *Special Dangers to Health*.—The household pests—flies and mosquitoes. Where they breed. Their haunts. Their menace to health. The urgent necessity for their destruction and how to secure it.

Work of the previous years continued and extended.

*Topics*.—1. The body—its blood.

2. Exercise, rest, and sleep.

3. First-aid.

4. Effect of alcohol and cigarette-smoking on the body.

1. *The Body*—

Simple facts of circulation. The blood—the river of life. How nourished, how cleansed, how circulated—the heart, the busy little pump.

The brain and nerves.

The controlling system for all activities of the body.

2. *Exercise, rest, and sleep*—

What exercise does for the body.

What rest does.

What sleep does.



The right conditions for sleeping. A comfortable bed with light, warm coverings—how to make it. Avoidance of exciting, irritating, and exhausting work, occupation or amusement before sleep.

Early hours for retirement and rising.

3. *First Aid*—What to do till the doctor comes—

Accidents and emergencies—the need for presence of mind.

Treatment of burns, scalds, cuts, and sores.

Removal of foreign bodies from the eye.

Nose-bleeding, fainting.

The nature and uses of roller and triangular bandages.

4. *Alcohol and Tobacco*.

*Alcohol*.—Special dangers to health.

Evils and waste of intemperance.

*Tobacco*.—Injurious physical and mental effects on growing boys and girls.

#### SIXTH CLASS.

Work of previous years continued and extended.

*The Health of the Individual—Personal Responsibility.*

*The Body*—

Further study of the circulation as to the blood flow to and from the heart.

Common pressure points to stop bleeding.

Simple study of bones and joints.

*First-aid*—

Practical work in bandaging.

Hemorrhage—applying a tourniquet or ligature.

Bruises, sprains, dislocations, fractures.

Treatment of the apparently drowned, choking.

Insect and snake bite, heat stroke.

Poisons—simple antidotes.

Fits and unconsciousness.

*The Health of the Community—Civic Responsibility.*

The effect of combined action in promoting the health of the community.

Local examples—

*Air*.—The proper construction of dwellings and public buildings to ensure a full supply of circulation of air. The provision of open spaces as parks and playgrounds—"The lungs" of the town or city.

*Water*.—How supplied; safety or danger to health; sources of pollution; readiest means of purification.

*Food*.—A pure food supply. Protection from contamination; regulations governing handling and sale of meat, milk, butter, and other foods.

*Refuse*.—Collection and disposal of refuse. Cleanliness and protection of garbage tins and other receptacles. Simple facts about sewerage.

#### *Control of Infectious Diseases.*

Compulsory notification, isolation, and disinfection.

Health laws against the spread of typhoid, small-pox, tuberculosis, hook-worm, and other infectious diseases.

The extermination of flies and mosquitoes as the chief agents of infection, everybody's duty.



**BOOKS OF REFERENCE.****In Infants' Schools.**

The Montessori Method—Chapters on Physical Education and Exercises on practical life.

The Health Reader—Elkington (Whitcombe and Tombs).

The Little Book of Health and Courtesy—Barnet (Longmans, Green, & Co.).

Health and Citizenship—S. A. Hildgate, B.A. (Bean and Sons, London).

Courtesy, Character, and Cleanliness—J. C. Harrison (E. J. Arnold and Sons, Leeds and Glasgow).

The Child's Book of Health—W. N. Edwards (Partridge & Co., London).

School and Home Hygiene—W. J. Abel, B.A. (Longmans, Green, & Co.).

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**For Primary Schools.**

Health Reader for Girls—A. L. E. Stenhouse, B.Sc. (McMillan's).

A Handbook of Health—Woods Hutchinson (Houghton, Mifflin, & Co., New York and London).

The Engines of the Human Body—Arthur Keith (Williams and Morgate, London).

Practical Hygiene—Alice Ravenhill (J. Arnold and Son, London).

School Hygiene—Dr. C. S. Willis.

The Health Reader—Elkington (Whitcombe and Tombs).

The Child's Book of Health—Albert Blaisdell, M.D. (Gunn & Co., New York and London).



## ART WORK.

The course comprises Descriptive and Decorative Drawing, Modelling, and Brushwork.

Modelling and Brushwork are set as alternative optional subjects; either may be taken with Drawing when teachers have the qualifications, but both should not be attempted in the same term in any class.

The expression, invention, and creation must be the child's own, carefully developed through self-criticism and the endeavour to improve. The child, as well as the teacher, should know why each drawing or design is being done.

### Object Drawing.

In drawing from objects, every child from the kindergarten to the highest class should produce the most complete expression possible, taking into consideration his age and the medium used. In colour work, the colour of the object should be shown as it is affected by the colour of the light, its shadows and reflections. Besides the drawing of the object in perspective there should be included exercises to express the attitudes and movements of human beings. Attention should be directed to the relative positions of the head, trunk, and limbs during certain actions which can be illustrated by a child posing for the purpose. The examples given are suggested to show the gradations of difficulty. Besides these, local flora and the objects in the home life or daily occupations, will enable teachers to arrange programmes of work sufficiently graded, varied, and interesting. The main principles specified for each class should be thoroughly understood, otherwise progress will not be made in the class above. These principles are:—

Classes I and II.—The direction and guidance of pupils in their endeavours to express freely their impressions and thoughts concerning things and people and to train them in mass and line drawing.

Class III.—Proportions between the various parts of an object.

Class IV.—Objects involving the free perspective of level circles and rings.

Class V.—Further free perspective as applied to straight edges.

Class VI.—A combination of IV and V in groups.

Use *free outline* when studying the free perspective in object drawing. Use *mass drawing* in showing all that can be appreciated in colour, shade, and shine. Have direct expression without construction lines. In the first few minutes the whole object or group should be expressed as truthfully as possible with free trial lines or masses, and during the rest of the time, each part should be criticised and improved. Improvements should be made before the trial lines are wiped off. In pencil work, make the relative tones correct before shading.

### Imaginative Drawing.

In all classes, this should be practised in connection with other lessons. Perfect freedom of expression must be allowed and no recipes for drawing given. Not only objects, but their whole environment, may be attempted. If



two or more pupils are found with similar pictures, or men, or objects drawn in the same way, the teacher will know that such work is not imaginative drawing.

Teachers might make sketches in presence of the children letting them see how the effect has been obtained. This may be done most advantageously *after* the child's own attempt at self-expression.

### **Free Perspective.**

This is the free drawing of things as they appear.

### **Free Exercises or "Drill" Work.**

Some few minutes should be devoted at the beginning of the lesson to free-line practice on a large scale. The crayon or pencil is to be held almost at arm's length, and moved at a fair speed with continuous movement over the same line. Ellipses, circles, spirals, loops, straight and curved lines, script capitals and figures, are all useful for this purpose—the aim being to compel the hand to obey the will definitely and exactly.

### **Memory Drawing.**

This should follow drawing from reality, and should be the reproduction of a drawing previously made. About five minutes should be devoted to this.

### **"Snap-shot" Drawing.**

In this, an object is shown for a few seconds while the pupils attentively study it. The object is then removed and the pupils draw it.

### **Brush Work.**

The teacher should endeavour to develop artistic taste, a sense of beauty in designs and colour schemes, and, in the higher classes, teach the elementary principles of design. Brushwork may be commenced in Class III. The first lessons should consist of brush play, instruction in the method of using the brush, managing the colours, and so on. After that, there should be regular brush drawing (without using pencils) from natural specimens. Designing should begin in Class IV and continue in the higher classes. It is to be based on natural specimens and their growth. In the lower classes use flat specimens and flat colouring, allowing the pupils to express as truthfully as possible what they see. In the higher classes, try for expression of colour variations and shadows.

### **Designing.**

The use of the pencil and mathematical instruments is necessary in designing. Colour is very important. In Nature drawing, the colours must be accurately matched, but, in design, practice in new colour schemes should be given. Each unit should be invented from the real specimen, and the arrangement of the units from its mode of growth. The work then becomes Ornament. This must be the servant of the thing to which it is applied, and accentuate the object's shape, construction, surface, and colour. The educative value of designing lies in the exercise of invention and aesthetic taste. Judge a design by its practicability for the purpose intended, by the quality of the drawing, and by the colour scheme.



**Modelling.**

Modelling may be done from reality, or from memory, or imagination, and original designs should be invented by the pupils. Designing should be in low or high relief, and for such purposes as wood-carving, stone-carving, repoussé leather, and metal. Modelling from imagination is useful in conjunction with other lessons, and for free expressive work in Classes I and II. No tools but the fingers are to be used for the first few years, and afterwards, only such tools as are necessary for details too small for the fingers. The objects to be modelled should be beautiful and useful. The decorative designs, if worthy of it, may be reproduced in wood, or cast in plaster, and so on.

**FIRST CLASS.**

*Drawing.*—Media to be used, dry colour.

(a) *Descriptive drawing* from objects and from memory. Feathers, fruit, flowers, tassels, brushes, brooms, and other objects of the home and school. Children (side views only) showing actions such as running, crawling, jumping, &c.

(b) *Imaginative Drawing.*—Illustrate Fairy Tales, &c.

*Modelling* of single objects, as buttons, leaves, fruit and flowers, &c. Free expressive modelling.

**SECOND CLASS.**

*Drawing.*—Media, dry colour.

(a) *Descriptive drawing* from objects and from memory.

(b) *Imaginative drawing.*—Similar to Class I, including perspective of sky and land and sea. People, houses, &c.

*Modelling.*—Objects in which constructive work is shown, as simple flowers, animals, and objects studied in the nature study lessons. Free expressive modelling. Modelling toys, such as dolls, animals, &c.

**THIRD CLASS.**

*Drawing.*—Media, dry colour.

(a) *Descriptive Drawing* of objects of fairly defined shape to be studied. *Examples.*—Hats and caps, feather duster, satchel, leaves, simple blossoms, fruit, vegetables, shells, pine cones, &c. More definite attention to proportions of the various parts of the human figure; also showing difference between a child and an adult; drawing of actions seen as in school games.

(b) *Imaginative drawing.*—Illustration, &c., of subject matter of literature, history, and geography.

*Brushwork.*—This may be introduced towards the end of the Third Class course.

*Modelling.*—(Alternative with Brushwork)—simple leaves, berries, fruit, blossoms, toys, &c. Also Free Expressive Modelling.

**FOURTH CLASS.**

*Drawing.*—Media, pastels or lead pencil.

(a) *Descriptive Drawing.*—Objects showing perspective appearances of the circle, such as, saucepan lid, Japanese lantern, hoop, cake-tin, flowerpot, inkwell, cup. Also fruit and vegetables (whole and cut). In pencil work there must be an approximate expression of the colour by means of several tones.

Study of more complicated human actions, as child bowling a hoop, boy ringing the school bell.

(b) *Imaginative Drawing.*—Illustration of lessons, stories, poems, and games such as boys playing marbles.



*Brushwork.*—Invention of various decorative forms from natural specimens. Simple leaves to be studied singly, such as small bamboo, myrtle, grass, clover, dolichos, willow. These will then be used in simple decorative designs.

*Modelling.*—(*Alternative with Brushwork*)—From objects that can be handled by the pupils, such as leaves, simple blossoms, berries, fruit, vegetables, and such objects as cup and saucer, jug, hat, pipe, &c.

#### FIFTH CLASS.

*Drawing.*—

- (a) *Descriptive Drawing in Dry Colours.*—Such objects as loaf, boot, basket, fruit, vegetables, flowers, coloured cushion, &c.
- (b) *Descriptive Drawing in Pencil.*—Free perspective of simple groups of objects, as pipe and box of matches, scissors with thimble and reel of cotton, plant growing in pot or in a glass of water, also corner of a press, partly open door, books, boxes, frilled cushion, woolly mat, &c. Proportions between human figure and objects near it, as child posting a letter in a pillar-box, boys playing cricket (to illustrate perspective).
- (c) *Imaginative Drawing.*—Illustrations of subject matter of lessons in literature, history, and geography.

*Brushwork.*—Drawing leaves and blossoms from natural specimens. Study of mode of growth. Colouring to be in flat tints. Flat tinting of spaces to be taught. Designing simple ornament, based on the principles of repetition, alternation, radiation, and symmetry, such as decorating squares, rectangles, triangles, forming borders, and tile patterns.

*Modelling.*—(*Alternative with Brushwork*).—From Nature. Sprays of leaves with and without fruit; objects of more advanced character than those for Class IV. Designs to decorate spaces, based on the principles mentioned in the Brushwork for this class.

#### SIXTH CLASS.

*Drawing.*—

- (a) *In Dry Colour, with Shade and Shine.*—Objects such as drapery, open umbrella, corner of table cloth with fringe, draped flag, birds, details of bird forms (claws, beaks, &c.), groups of fruit, flowers, vegetables.

*In Pencil.*—Free perspective of objects in groups, as blackboard and easel, tray with cup and saucer, &c., steps, part of a fence, row of telegraph poles, watering can, &c.

*Human.*—Also introducing animal forms, as boy walking up steps, boy running with a dog, man walking with a horse. Drawing of hands, ear, nose, &c.

- (b) *Imaginative Drawing.*—Illustration of lessons with special attention to "composition" of the picture.

*Brushwork.*—Study of natural growths. Study of surface markings on flat colours, as in pansy, nasturtium, &c. Designs for borders, tiles, book covers, &c., based on the principles of grouping, subordination, and balance.

*Modelling.*—(*Alternative with Brushwork*).—From natural specimens more difficult examples of sprays of leaves, flowers, fruit, &c. Original designs for decorating set spaces, and showing the principles of grouping, subordination, and under-cutting.

In 4th, 5th, and 6th Classes applied designs may be attempted.



## MUSIC.

The aims of the course of work prescribed are—(1) *Ear Training*, to give pupils the sense of variations of pitch and the relationship between sounds; (2) *Voice Training*, to ensure smooth production and to cultivate a feeling for tone colour; and (3) To develop in the pupils power to read music, to render songs expressively, and a desire to continue their musical education.

## Notes.

*Breathing*.—The breath should be taken in, held, and then used as the power for producing the vocal sounds.

The following exercise should be practised:—

Stand erect, and placing the hands on the lower part of the ribs, breathe in through the nostrils, keeping the upper portion of the chest steady. Direct the air to that part covered by the hands. Exhale by monotonizing or singing numbers up to 8, 12, or 16. *The shoulders should not be raised during the exercise.*

As an additional exercise for Classes IV, V, and VI, there could be practice in *quick* breathing, *e.g.*: After a good breath, exhale by counting (in rather slow time) up to, say, 8; then take a quick breath, and (without losing a beat) continue counting as far as possible without strain.

*Voice Training*.—This should commence in Third Class, and should continue throughout the upper classes. Pitch the key-note rather high, say D, E, or F, and sing down the octave, using only one breath. This should be done at first to various vowels (according to the following sequence), and afterwards to the sol-fa syllables:—

*Vocal Sequence*.—

## I. "o" (as in "hot")—

A few exercises only. If too long continued the tone tends to hardness, so that after three or four scales a change should be made to

## II. "oo" (as in "tooth")—

The lips should be pushed well forward so as almost to close the mouth—the teeth must be kept apart.

## III. "ee" (as in "me")—

This vowel is derived from "oo" by slightly drawing back the lips. ("ee" is a good antidote for "shouting" on the high notes.)

Again pushing the lips forward, but keeping them a little wider apart, produce—

## IV. "oh" (as in "home")—

Drawing the lips back slightly, as in III, get—

## V. "ay" (as in "tame")—

Repeating the foregoing lip movements, but with the lips wider apart will give the following:—

## VI. "aw" (as in "brought" or "draw"); and

## VII. "ah" (as in "father").

Any attempt to sing loudly during these exercises should be suppressed. Soft singing is a matter of breath control; teachers should therefore train the children to hold breath in reserve.



*Ear Training.*—The foundation (which should be laid in the Infant Classes) is the development of a feeling for *standard pitch*. From the first the pupils should be encouraged to memorise the sound of "Middle C." Opportunities for practice in this direction will be found frequently during the day, at changes of lessons.

In the early stages the sound to be imitated should be confined to the octave from "middle C." Later, sounds beyond the octave may be given.

All phrases used as exercises for the recognition of pitch should be taken from the scale of C Major.

*Modulator.*—In Infant Classes, Modulator practice should not extend beyond exercises for making the pupils familiar with the sol-fa names for the notes of the scale.

From Class III upwards, the following procedure will be found of much value in commencing all modulator practice:—

Have "middle C" sounded (preferably by one of the pupils); then sing up the scale till the key-note of the coming exercise is reached. Call that sound "doh" and then practise the following exercises before proceeding with the work prescribed for the class:—

d : r : m : f : m : s : d

or

d<sup>1</sup> : t : l : s : f : s : m : s : d<sup>1</sup>

Dwell slightly on the "fah" before singing the "strong tones."

*Pronunciation.*—To avoid a nasal tone the voice should be thrown towards the front of the mouth. The vowel quality as set down in the sequence under Voice Training should be insisted upon.

Be careful of diphthongs, *e.g.* :

"I" (as in "night" or "time") equivalent to ah—ee.

"OW" (as in "cow" or "down") „ ah—oo.

"OI" (as in "joy" or "toil") „ aw—ee.

"U" (as in "tune" or "few") „ ee—oo.

In pronouncing these, the first element should be dwelt upon, the second being used merely to *finish the sound*. Avoid such an error as "nigh—eet" (night).

Correct pronunciation is necessary in speech, and is most essential in singing where words are dwelt upon.

*Time and Sight.*—It is advisable to give time exercises separately at first on one sound, and then on scale-passages. The children should beat the time with the teacher, or tap the beats on the desk whilst singing. The school drum could be used for individual tests.

*Songs.*—Insist on pure tone and vowel sounds. Do not force the voice. Use unison songs freely with a judicious mingling of two-part and three-part harmony for the upper classes.

In teaching a song it should first be sung to the sol-fa names. Before the words are used they should be learned thoroughly and appreciated as poetry.

Always pitch the song in a key suited to the voices and to the composition of the song.

As an introduction to part singing a few simple rounds should be taught.



*Choice of School Songs.*—Care should be taken that the words and sentiment are suitable. Aim at a high class of song.

Hymns—"Lead, Kindly Light;" "Abide with Me;" "Oh, Come All Ye Faithful."

Carols—"The First Nowell;" "Good King Wencelas;" "Like Silver Lamps."

Australian Songs—"Advance, Australia Fair;" "Australians All."

National Songs.

Folk Songs and Melodies.

Many suitable songs will be found amongst the compositions of Handel, Schubert, Schumann, Mendelssohn, Spohr, Beethoven, Wallace, Gounod, Sullivan, Wagner, &c. Most of these will be found in Novello's Classical Songs, Vols. I and II.

By the end of their Primary Course, pupils will be expected to have learned a repertoire of songs which might include, among others—

God Save the King.

The Dear Little Shamrock.

Home, Sweet Home.

Men of Harlech.

Advance, Australia Fair.

Hearts of Oak.

Auld Lang Syne.

Admiral's Broom.

Afton Water.

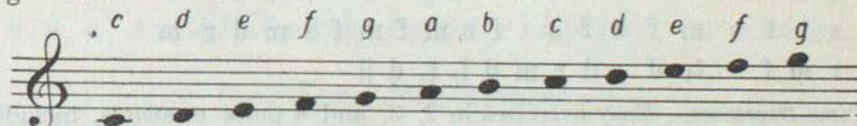
Rule Britannia.

The Last Rose of Summer.

It is to be remembered that the ability to *read music* is of much more importance than learning a long list of songs by ear. At the same time it is expected that during each year a reasonable number of new songs should be learned.

Attention is invited to songs published in the "School Magazine."

*Staff Notation.*—As an introduction to Staff Notation the children in Fourth Classes could be exercised in "modulator" practice on the following diagram:—



selecting any note for "doh" that may be desired, always reckoning its pitch from "middle C," the teacher placing the proper key signature on the staff without comment.

This "staff modulator" can be used also in the upper classes side by side with the Tonic Sol-fa Modulator.

#### FIRST AND SECOND CLASSES.

*Aims.*—Training of the ear. Correct method of breathing. Rhythm. Sweet singing and distinct pronunciation.

Cultivate sense of pitch by pupils' imitation of tones of varying pitch and of short phrases produced by teacher's voice, or a musical instrument, *e.g.*:

| d : r : m | m : r : d | m : f : s | s : f : m |

Develop the memorisation of the sound of "Middle C."

Simple melodies by ear, suitably pitched and correct in time and tune.

Nursery rhymes to tunes. Marching songs. In all exercises correct time to be kept.

*Voice Training.*—Practice first the "o" sound as in "hot," then the "oo" sound on notes of varied pitch.

*NOTE.*—Songs always to be of suitable range, say, from C to E (d to m<sup>1</sup>).

Keep pitch of songs well up. Use tuning fork to secure correct pitch. Suppress shouting, nasal tone, and bad pronunciation, especially of vowels "a" and "o."



## THIRD CLASS.

Cultivation of the "head" voice. Elementary knowledge of the Modulator.

*Scales.*—Pitch from upper "m" (E) or "fah" (F). Call that sound "doh," and sing scales downward and upward again to one breath fairly fast. Use first tonic sol-fa names for the suitable vowels, *e.g.*, I, II, III, as given in the vowel sequence. (See Notes.)

*Modulator.*—The strong tones of the scale including octave, up and down, and the other notes of the scale in succession.

Teach first the strong tones—*d m s m s m d. d m s d' s m d, d, s d' m s s d.*

Then teach *r* and *t*, in relation first to *d*, then to *m*, using such phrases as—*d r d t d. d r t d, d t r d. d t d r m r d t d.* Link up *r* and *t*, with *s*, and practice the notes of the chord *s t r* or *s t r'*.

Next introduce *f* stepwise from *m* in such phrases as—*m f m. m f s f m.* Lastly, introduce *l* stepwise from *s* in such phrases as—*s l s. s l t l s.* Practice the chord *f l d'*. *d' l f l d'*.

In all the above use frequent variations of key. Follow with such exercises as—

Keys C to E.

*d' t l t l s l s f s f m f m r m r. r d t d d r m r m f m  
f s f s l s l t l t d' t d' r' d' ||*

Key C or D.

*d' r' m' d' l t d' t d' r' t s l t l t d' l f s l  
s l t s m f s f s f r m f m f s m d r m  
r m f r t d r d r m d l t d ||*

*Time Exercises.*—Easy exercises in 2, 3, and 4 pulse measures, including "holdmark." Use such exercises as—

*| d :—: d | d :—:— || : d | d :—: | d : d | d : d | :—: | d :—:— ||*

*Songs.*—Songs in unison. Rounds in two and three parts. Sing the melody to the sol-fa names, then to a suitable vowel, and lastly to the words.

## FOURTH CLASS.

*Scales.*—Pitch scale practice from upper F, E, or Eb. Call that sound "doh." Use sounds 1, 2, 3, 4, 5 (vowel sequence), and then the sol-fa names.

In all scale passages move from the upper *doh* downward and return to tonic. Extend scales to *r'* and *t*.

*Modulator.*—The 5th, 3rd, 2nd, 4th, from tonic upward, any 3rd within the scale. (A 3rd embraces three notes, such as *d* to *m*, *m* to *s*, *r* to *f*, *s* to *m*, *f* to *r*.)

*d m s m f r t s d m r f s d' t  
d' r' t s l s m d f r m f s s d  
d r m f r m f s m f s l s l t d  
d m s m r f l f s t r' t l s d'*





*Time Exercises.*—Pulse, half pulse, hold marks, pulse rest, half pulse rest : as indicated in exercises given below :

| d : d.d | d : d | d : - . d | d : - | d : | d : - . d | d.d : | d : - |  
: d | d : . d : d | d : : d.d | d : d : - | d : - : | d : - |

*Songs.*—Chiefly in unison but rounds and two-part songs are also to be given.

*Staff Notation.*—The pupils should be made acquainted with the five-line staff and the G clef. Position of middle "C" (first ledger line) should be shown, then those of other notes to upper "G" (using alphabetical names). Practise scales and intervals on "staff modulator." (See Notes.)

#### FIFTH CLASS.

*Scales.*—As in Fourth Class, but extending to the whole of the vowel sequence. (See Notes.)

*Intervals.*—2nd, 3rd, 4th, 5th, 6th, and 8th. Introduction of "fe" and "ta" in such phrases as s fe s, m fe s, d ta l, s ta l, and in such exercises as—

Key D.

d m s m r, d s fe s l s f, m s d', s d' ta, l s l t d',  
s f m s ta l m f fe s t d'

*Time Exercises.*—Including half pulse, three-quarter, and quarter pulse as indicated in the following exercises :—

: d | d : d., d | d : - . d | d.d : d | d : - . d | d : - | d., d : d.d | d : - | m ||

#### Time and Tune Combined.

Key D.

*p* *cres.* *dim.*  
| d : - . r | m : s | d : - . r | m : s | d' : - . t | t : l | s : fe | l : s |  
*mp* *p* *mf*  
| r : - m | f : l | r : - . m | f : l | s : d' | ta : l | t : s | d' : - ||

Key G.

*p* *cres.*  
| m : r.d | l : d | s : - | d : - | m : r.d | m : fe | s : - | - : f |  
*p* *cres.* *dim.*  
| m : r.d | l : d | s : d | ta : l | m : r.d | r : m | d : - | - : - ||

Key F

*f* *dim.*  
| d : t : d | s : - : f | m : d : ta | l : - : - | l : s : f | l : m : r |  
*p* *cres.* *dim.*  
| s : r : f | m : - : - | d : s : ta | l : m : r | s : l : t | d : - : - ||

*Staff Notation—Pitch.*—The staff and G clef, names of notes on lines and in spaces. Practice on staff modulator. (See Fourth Class.)

*Duration.*—Notes and rests—semibreve to quaver inclusive. Time exercises in  $\frac{2}{4}$  and  $\frac{3}{4}$ , first on one sound and then to scale passages. Impress clearly, in these exercises that the *crotchet* = one beat



*Expression Marks.*

*p* (*piano*), softly; *cres.* (*crescendo*), get gradually louder; *dim.* (*diminuendo*), get gradually softer; *f* (*forte*), loud, but not a shout; *mf* (*mezzo forte*), not so loud as *forte*; *mp* (*mezzo piano*), not so soft as *piano*.

*Songs.*—Suitable songs. Unison and two-part; also rounds. Sing to tonic sol-fa syllables then vowels, and then words.

Thorough knowledge of modulator should be acquired. The Tonic Sol-fa modulator and the "staff modulator" should be used freely side by side to given facility in the transition from tonic sol-fa to staff notation.

## SIXTH CLASS.

*Scales.*—As in previous class. A higher scale than F may be used if desired.

*Modulator.*—More thorough knowledge of the intervals of the scale, with extension beyond the octave.

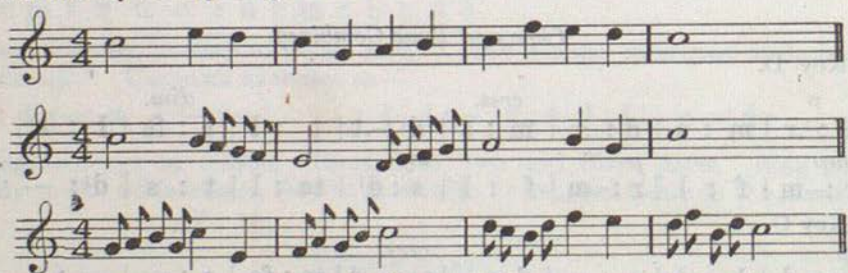
Practise introduction of "se" and "re" as—

l : se : l  
m : se : l  
t : se : l  
r : re : m

The explanation of  $\sharp$ ,  $\flat$ , and  $\natural$  will allow of the sol-fa modulator exercises being easily transferred to the staff modulator.

*Staff Notation.*—Time exercises—both simple and compound. Simple time;  $\frac{2}{4}$ ,  $\frac{3}{4}$ , and  $\frac{4}{4}$ . Show clearly that  $\bullet = \text{one beat}$ . Compound time, and  $\frac{6}{8}$  ( $\bullet = \text{one beat}$ ).

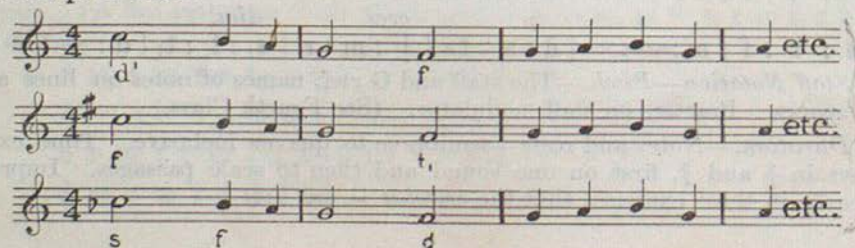
Exercises to be sung to the one note calling it "doh"; later exercises based on easy scale passages as—



*Sight Reading.*—Exercises to be in keys with not more than three sharps or three flats. Use "movable doh."

*Key Signatures.*—Teach that the last  $\sharp$  in the signature represents the position of "t" and the last  $\flat$  that of "f" in the new scale.

Exercises similar to the following may be given to show the real effect of the sharps or flats:—





For more advanced work the following types of exercises are given :—

The image shows three musical exercises, (A), (B), and (C), each consisting of two staves of music. Exercise (A) is in 4/4 time and features a key signature change from G major to F major. Exercise (B) is in 4/4 time and features a key signature change from G major to D major. Exercise (C) is in 4/4 time and features a key signature change from G major to A major. The notation includes various rhythmic values such as quarter, eighth, and sixteenth notes, as well as rests and accidentals.

*Ear Training.*—Write in tonic sol-fa names a simple melodic phrase sung by teacher or inspector, or sounded on an instrument.

*Songs.*—Suitably selected songs (one, two, and three part), also rounds.

As many songs as possible should be learned from the staff notation. Pupils should read individually from printed copies rather than from the blackboard when such is practicable.

The directions given in the Notes should be thoroughly applied.



## MANUAL TRAINING.

The aim of handwork is to teach children to express themselves freely with the materials available and to form habits of industrious, careful, and accurate work through the discipline of the hand and the eye.

Handwork should be dealt with from two aspects—first, as a subject in itself, taught for its own sake; secondly, as an aid or instrument to illustrate other subjects. The first may be called the “pure construction” course—which seeks to cultivate skill. Full attention to technique is here appropriate. The second branch includes all cases in which constructional work is incidental to other interests. Success in this direction is gauged by the extent to which the children develop power and find pleasure in expressing their ideas.

Opportunities should be given for working in as many materials as possible. The greater the variety of materials, the greater will be the interest aroused.

Experience has shown that in addition to ordinary wood and metal, such materials as clay or plasticene, wool, cord, paper, cardboard, raffia, cane, light woodwork material, wire and strip metal, are very suitable, and admit of a wide range of handwork.

In Third and higher classes drawings should be made of the objects that are to be constructed in paper, cardboard, wood, and metal. These drawings should be set out neatly and carefully in books kept for the purpose.

The models in all the occupations should be carefully graded in difficulty, and each exercise should be satisfactorily completed before going on to the next. If repetition is necessary, this should be obtained by making an article which is somewhat different from the one already attempted, though it should not involve any fresh difficulty.

In this way interest will be maintained, and success will be much more likely to reward the effort.

The teachers must not do the child's work.

Teachers are advised to construct beforehand the models they propose to get the children to make, so that they may become thoroughly acquainted with every detail and difficulty.

They should select the most suitable materials and tools, and consider the best way of storing, preserving, and distributing them; the best means of dealing with the materials, and so forth. The detailed syllabuses which follow show the courses of work recommended for the different classes.

A suitable selection should be made by the teacher.

In all classes opportunities should be given for free choice work, and correlated handwork should be carried out whenever opportunity offers.

The models set down are suggestive only. Teachers are free to substitute suitable alternative models.

### KINDERGARTEN.

Sand table work, floor games, modelling with clay or plasticene, building with blocks, threading beads, raveling or fraying, paper twisting, tearing, and cutting—or other suitable occupations.

### FIRST CLASS.

Sand table work, modelling with clay or plasticene, mat weaving with broad strips, card sewing, paper cutting, simple paper folding and construction work in paper, spool knitting, or other suitable occupations.



## SECOND CLASS.

Sand table work, modelling with clay or plasticene, paper cutting (illustrations for stories or nursery rhymes, &c.), poster work, friezes, paper folding and construction work in paper and thin cardboard, making of booklets, furniture for doll's house, bead work, knotting, coarse sewing on canvas, simple loom weaving—using wool, raffia, knitting cotton, &c.; raffia work—winding, braiding, and sewing; toy-making; crocheting, and knitting—or other suitable occupations.

A selection should be made by the teacher of the occupations suited to requirements.

## THIRD CLASS.

1. *Paper Modelling.*

Planning should always precede construction work.

The drawings should be made in books specially kept for the purpose.

The models are based on square, oblong, and triangle.

*Suitable examples*—(1) *Flat*: Square mat, oblong mat, block letters, e.g., T E L H W F, four-pointed star, Maltese cross, thread winder, photo. mount, match-striker, notice card, cup and saucer, candlestick, vase.

(2) Folded and pasted together—some of the models could be tied with sylko.

*Suitable Examples*:—Square tray, photo. frame, paper bag, square envelope, rectangular tray, card case, basket, sweets box, box with lid, pocket case, shed.

Some of the models could be decorated with cut paper designs.

2. *Other Occupations.*

(a) *Raffia work*—Raffia wound on cardboard foundations, plaited, work and coiled work—simple stitches only to be undertaken.

*Suitable Examples*:—Mats, boxes, frames, wall pockets, trinket cases, letter racks, &c.

(b) *Reed basketry*—Simple examples of reed basketry, using fine cane for weaving, and medium cane for stakes.

*Suitable Examples*:—Mats, small baskets with upright and sloping sides, baskets with simple handles, e.g., flower baskets, use of simple borders, e.g., trellis border.

(c) *String or Cord work*—Knotting, binding, plaiting, netting. Use of string and macramé cord. Construction of bags, tidies, pockets, nets. Covering of rings, &c.

(d) *Toy-making*—Paper boxes, paper fasteners, thin wood, cloth, pieces of wire, cardboard, and other odds and ends of materials could be used for this work.

Construction of objects, e.g., cart, barrow, engine, table, chair, house, aeroplane. Simple constructions only to be used.

## FOURTH CLASS.

1. *Cardboard Modelling.*

Planning should always precede construction work.

The drawings should be set out in books kept for the purpose.

Models based on square, oblong, triangle, circle.

White pasteboard, eight to ten sheets thick, or coloured cardboard, is required for these models.



Some of the models to be constructed with flanges, others with butt-joints bound on the edges with strips of paper.

*Suitable Examples.*—(1) *Flat*: Triangular, circular, hexagonal, octagonal mats, quatrefoil, trefoil, bookmarks.

(2) Folded and pasted together.

Trays of various shapes with upright and sloping sides, *e.g.*, rectangular tray, triangular tray, hexagonal tray, picture frames (rectangular and circular), cartons of different shapes, wall pockets of different designs, letter-rack, rectangular box and lid, hexagonal box and lid, lamp shade, sweets box, models of articles of furniture, *e.g.*, stool, chair, table. Some of the articles could be decorated with brushwork or cut-paper designs.

## 2. Other Occupations.

(a) *Reed Basketry*—Using pith cane or suitable substitutes. Simple forms of weaving; handles and borders of simple types. Use of wooden bases, rectangular and circular shapes.

Construction of baskets, *e.g.*, card tray, fruit basket, cotton basket, small basket with handle.

(b) *Coiled Basketry*—Using raffia on cane foundation. Simple weaves, *e.g.*, lazy squaw, simple coil.

Construction of baskets of different shapes. Simple designs with coloured raffia.

(c) *Light Woodwork and Toy-making*—Use of thin wood, strip wood, cardboard, wire, cotton reels, &c.

Construction of simple models, *e.g.*, seed marker, plant label, ladder, key-rack, photo frame, silk winder, string winder, cart, table, weather vane.

## FIFTH CLASS.

### 1. Light Woodwork.

This work involves the use of simple tools, *e.g.*, tenon saw, hammer, knife, file.

Construction of objects, *e.g.*, ladder, flower-pot stand, paper knife, gate, garden seat, birdhouse, cart, motor lorry, using thin wood and strip wood of different cross sections.

Group models could be made, *e.g.*, a railway station, a farm with houses, sheds, fences, &c.

Use of coping saw or fret saw.

Cutting out of animal shapes, construction of toys of different kinds.

Drawings of models to be constructed are to be made in books kept for the purpose.

### 2. Cardboard Modelling.

Planning should precede all construction work.

Drawing the developments of models to be made, also sketches of completed models.

This work should be done in books kept for the purpose.

Construction of models in stout cardboard, pasteboard, and strawboard, binding edges with paper or bookbinders' cloth.

Some of the models to be covered with fancy paper.

(1) Using stout cardboard or pasteboard: Boxes of different shapes, wall pockets, model furniture, *e.g.*, chair, sideboard, dressing-table, book-case.



(2) Using strawboard: Table mats of different shapes, rectangular pin tray, box and lid, inkstand, draught-board, blotting-pad portfolios, stationery case.

Drawings of models that are to be constructed should be set out in books kept for the purpose.

### 3. Other Occupations.

- (a) *Wire Work*—Construction of objects in wire. *e.g.*, ring wire staple and hook, handle, meat hook, bill file, photo stand, toasting fork, egg lifter.
- (b) *Bent Iron Work*—Construction of objects in strip iron, *e.g.*, mat pen stand, photo stand, bracket, mount for vase or bowl, key rack.
- (c) *Reed Basketry*—Use of pith cane or other suitable substitutes; construction of baskets, with round and oval bases; simple types of handles; use of wooden bases of different shapes.

*Suitable Examples*: Shopping basket, work basket, waste-paper basket, basket for flower-pot, fruit basket.

*Coiled Basketry*—Various weaves, *e.g.*, lazy squaw, figure eight knot stitch; use of coloured raffia for designs; baskets of different shapes.

## SIXTH CLASS.

### 1. Woodwork.

Exercises involving the use of the rule, try square, scribe, marking gauge, jack plane, block plane, rip saw, cross-cut saw, brace and bit, hammer, tenon saw, firmer chisel, mallet, bow saw, file, spokeshave, screwdriver.

Construction of models, *e.g.*, string winder, plant label, teapot stand, line stick, cutting board, simple box without lid, tooth-brush rack or match-box holder (housing joint).

Photo. stand, watch stand, or tie rack (more difficult shaping and simple applied decoration).

Candlestick, vase holder, book rack (lapped half joint).

*Drawing*.—All models must be drawn before they are constructed. Plans and elevations of simple rectangular and curved objects.

Oblique and isometric projections—rectangular examples.

The drawings should be made in books kept for the purpose.

*Tools*.—Simple facts on use of tools.

*Timber*.—Parts of a tree, its growth and structure. Grain of wood. Classification of timber.—Lessons to be given on the uses &c., of the following timbers: Colonial pine, Putt's pine, colonial beech, pacific maple, silky oak.

Lessons on the use and care of tools, timber, &c., should be given concurrently with the bench work.

Each of these lessons should not occupy more than twenty minutes.

### 2. Light Metalwork.

This work includes simple exercises in—

(a) Tinplate—soldering, riveting.

(b) Copper, brass, iron—simple repoussé ornament; filing.

Construction of objects, *e.g.*, (1) Match tray, cake cutter, scoop, rectangular cake tin, pannikin (tinplate).

(2) Picture hook, coat hook, bracket, keyhole escutcheon, paper knife, finger plate, drawer pull, photo. frame, brass pen rack (brass, iron, copper).



3. *Other Occupations.*

- (a) *Wood Carving*.—Chip carving—use of skew chisel, cutting out geometrical units. Combination of these to form designs. Use of fluter, veiner, gouge. Incised and strap work patterns.

Applications.—Newspaper rack, teapot stand, photo. frame, panels, &c.

- (b) *Ornamental Metal-work*.—Simple ornamental work in pewter, brass, and copper, involving etching, shaping, and decorating with repoussé ornament.

Construction of objects, *e.g.*, ash tray, pen tray, match holder, candlestick, photo. frame, trinket case.

- (c) *Leather Work*.—This work includes embossing, staining, and sewing parts together.

Construction of objects, *e.g.*, card case, book cover, shaving tidy, wall pocket, bag.

- (d) *Advanced Cardboard Modelling*.—Use of bookbinder's cloth, leatherette paper, fancy end papers, marble paper.

Construction of objects.—(1.) Paper file, work box, collar box, handkerchief, writing portfolio, inkstand, portfolio with flaps and tapes, album case.

(2.) Elementary exercises in book-binding, *e.g.*, rebound book, or binding of magazines and music.

- (e) *Reed Basketry or Coiled Basketry*.

(1.) *Reed Basketry*.—More difficult exercises in weaving, use of pith cane, sea grass, plaited straw, baskets with handles and lids. Construction of objects, *e.g.*, shopping basket, cake basket, work basket, lunch basket, trays of different shapes.

(2.) *Coiled Basketry*.—Construction of baskets after Indian types. Design with coloured raffia. More advanced weaves, *e.g.*, Samoan weave.

**Notes on the Occupations in the Course.****KINDERGARTEN CLASS AND CLASSES 1 AND 2.**

*Sand Table Work*.—A sand table can be used for recreative purposes and also for illustrating lessons, stories, &c. Its value lies in the development of the imaginative and constructive powers of the children.

The technique of processes of construction is of secondary importance, but careful work should always be encouraged. The complete project has little value after it has served its purpose as an illustration and may be quickly destroyed to make way for the next project.

Emphasis should be laid upon the general effect of the work rather than upon the detail of its construction.

To be of the greatest service, the project should be completed while the subject is under discussion.

The first essential is that the work should be the children's own, but the teacher may assist the pupils in the imaginative building up of the project to be worked out. The children then have a definite aim. Suggested improvements may be made by the teacher, but she must neither plan the project, nor dictate the method of procedure.

Among the benefits of work of this nature is the development of resourcefulness. The necessity for expressing an idea in concrete form with the actual materials at hand often calls for considerable ingenuity.



*Modelling.*—Modelling simple round forms, *e.g.*, ball, beads, common objects, fruit, vegetables, &c., pottery shapes, cup and saucer, jug, &c. Modelling to correlate with other lessons, *e.g.*, reading, story telling, &c.

*Paper Tearing.*—This occupation is a valuable means of expression to children. The paper used should not be flimsy. Newspaper, lining paper, and several kinds of wrapping paper are suitable. Coloured papers give greater satisfaction to the children by their brightness of effect.

Exercises might include tearing paper in strips, making tassels, tails for kites, common objects, *e.g.* spinning top, umbrella, ship, house, also tree forms, leaves, fruit, vegetables.

*Paper Cutting.*—Paper cutting includes free cutting and outline cutting. As far as possible objects of bold outline should be attempted first. Illustrations for stories may form part of the paper-cutting course. After a story has been read aloud, and the characters and events freely discussed by the class, each child may be encouraged to represent the part that appeals to him most.

The cuttings having been made they can be mounted in a series—"to tell the whole story." Cutting out pictures from journals and catalogues, and the making of charts, posters, and decorations for the room, are other useful forms of paper cutting.

*Paper Folding and Construction Work.*—When the children commence paper modelling, simple quick work may be done, illustrating talks and stories, by constructing models of houses, tents, tables, &c., which may be made by simply folding without any cutting or fixing. These will be temporary in character, and from their simplicity will require the exercise of imagination.

The method of treatment needs to be varied.

For example: After opportunity has been given for choice of material and free work, the child might be asked to work from simple models or descriptions; while an occasional exercise in working with the teacher may be necessary as a training in technique.

Any kind of stiff paper, *e.g.*, cover paper, or art tinted paper, may be used as material for this work. Scissors, rulers, and pencils will also be required. The parts of the models may be fixed with sylko, ribbons, &c., while paste is preferable to gum.

A large number of models may be made by using the sixteen-square ground form.

*Weaving.*—Mat weaving is interesting to young children, and cultivates a sense of colour, and trains the hand to nicety of touch. The mats constructed can be put to various uses—for making wall pockets, book covers, boxes, &c.

*Spool Knitting.*—Spool knitting is carried out on a toy knitter, which could be simply a cotton reel fitted with two tacks. Sylko is suitable material to use, and there are other cottons that might be used.

The webbing made on this knitter is sewn together to make different articles, *e.* , mat, doll's cap, doll's coat, toy reins, &c.

*Loom Weaving.*—Simple cardboard looms of different shapes, or wooden looms, may be used for this work. A small wooden frame with nails, arranged in rows at each end, could be used as a simple loom. Adjustable looms are very convenient.



Various materials, *e.g.*, raffia, carpet warp, jute, knitting cotton, rug yarn, may be used. Many materials suited to weaving may be coloured in the schoolroom with cold-water dyes. Objects like ironholders, mats, rugs, hammocks, curtains (for doll's house), doll's scarves, &c., could be constructed.

*Raffia Work.*—The raffia may be wound on cardboard foundations; plaited knotted, or coiled and stitched. Many objects, such as mats, needlebooks, serviette rings, picture frames, &c., could be used.

*Toy-making.* Odds and ends may be used for this work, *e.g.*, gas-mantle boxes, pieces of corrugated or plain cardboard, thin wood, string, wire, reels, tinfoil, corks, clothes pegs, buttons, &c., collected by the children.

The importance of this exercise lies mainly in the satisfaction felt by the children when they have made something which they can use.

It is neither necessary nor desirable that all the children in the class should be doing the same thing at the same time. Even though the whole class may be making toys, there will be differences in them, dependent partly upon the individual children's tastes and ideas, and partly on the materials at their disposal.

Experiment with a definite aim should be encouraged, and children should be allowed to find out as much as they can for themselves as soon as they have made up their minds what they intend to make.

Objects of the following types might be constructed, *e.g.*, doll's carts, perambulators, swings, engines, toy furniture, &c.

*Threading Beads.*—Beads of different shapes, round, oval, tabular, prism, may be used for this work. The beads could be threaded with fine wire, string, or cotton.

Simple patterns may be made, or objects constructed, such as tea-pot stand, picture frame, napkin ring, bracelet, etc.

*Coarse Sewing.*—This work is carried out on rug canvas, ivory canvas, huckaback, or some other suitable material. The stitching is done with ingrain cotton, sylko, wool, etc.

#### CLASSES 3 TO 6.

##### *Paper Modelling.*

Paper modelling for third class should be conducted on similar lines to cardboard modelling. It forms a good introduction to the latter, and the two form a good preparation for the handwork in the highest classes.

The cutting instrument is the scissors, which the pupils have learnt to use in the infants' school.

Cover, manilla, and cartridge papers are suitable for the work, but if these are not available any other thick paper may be used. Thin cardboard may be used in later exercises. As an adhesive, paste is preferable to gum.

Some models may be tied with sylko, the necessary holes being made with a punch.

##### *Cardboard Modelling.*

Thin cardboard should be used at first, then stouter cardboard and strawboard.

The range of objects that can be made is very large—from a simple rectangular mat to a well-finished and durable object, such as a work-box or cabinet.

Some models may be made with "flanges," in others "butt" joints may be used, and paper or bookbinder's cloth used to bind the edges. Models might be decorated with brushwork or with coloured or fancy papers.



The knife is the cutting instrument for this work, and it is advisable to work on a cutting board, which may be made of wood or zinc.

The teacher should, before every lesson, prepare a development of the model to be made, also a completed model. The latter should be examined by the pupils for the purpose of discovering its development, and ascertaining the shape and dimensions of the material required.

The development should then be pinned on the blackboard, and the drawing built up from it.

Planning should always precede construction work.

The pupils should set out their drawings in books specially kept for the purpose.

Cardboard work may be used to illustrate points in connection with arithmetic, mensuration, &c.

Simple methods of making suitable adhesives are as follow:—

*Paste.*— $\frac{1}{2}$  lb. flour, 1 oz. alum; boil in a cupful of water, add a few drops of oil of cloves.

*Liquid Glue.*—Soak some thin cake French or Russian glue in dilute acetic acid and render it liquid by gentle heat; then add one part of methylated spirits and a small quantity of alum; stir well. This solution should be kept in corked bottles.

#### *Light Woodwork and Toy Making.*

This work forms a good introduction to the work in the Sixth classes. If benches are not available it should be carried out on a work board placed on the top of an ordinary desk.

Each boy requires only a few tools—small saw, knife, light hammer, file. A few are also required for community use—brace and bits, a disc cutter, plane, chisel.

Soft timber should be used. It should be dressed and cut into the required width before giving it to the pupils. Fret-sawing work should be done with a coping saw or fret saw in three-ply wood or thin timber.

#### *Reed Basketry.*

The material used for this work is known as pith cane. It should be soaked in water before being used in order to make it more pliable.

For young children sizes 2, 6, and 8 are recommended, as the coarser varieties are rather difficult to manipulate.

Plaited straw and rush could be introduced into this work. The articles made need not be of large size. Where possible native grasses, rushes, reeds, twigs, &c., should be used for this work.

#### *Raffia Work and Coiled Basketry.*

The foundations for the round work should be made out of cardboard. For coiled and plaited work needles are required to sew the parts together. Tapestry needles are suitable for this purpose.

The plain raffia may be coloured with aniline dyes.

#### *Wood Carving.*

Pupils should have practice in using the different chisels, *e.g.*, skew chisel, gouge, veiner, fluter. Practice panels should be worked.

After some proficiency has been gained in the use of the different chisels, the decoration of simple objects should be undertaken.

The pupils should make their own designs.



*Ornamental Metal Work.*

This work may be carried out in pewter and light-gauge copper and brass.

At first, practice should be given in using the different punches, *e.g.*, tracers, pearls, &c.

After some practice has been given in using the different tools, the decoration of simple objects may be undertaken. Pupils should set out their own designs.

*Leather Work.*

Different kinds of leathers may be used in this work—suede, basil, calf skin, imitation—morocco, cowhide.

The chief tools are a pair of punch pliers and a pointed tool called a tracing tool. A knitting needle inserted in a piece of wood, or a bone crochet-hook might be used for the latter.

The operations include cutting, embossing, staining, sewing.

Pupils should make their own designs.

*Woodwork.*

The aim of this instruction is to provide a training for the hand and eye, with special regard to accuracy in observation and measurement, and to impart a knowledge of the principles of good construction. Accordingly, the bench work is arranged so as to take the form of graduated exercises, each successive exercise introducing a new tool, or a new mode of using the tools which have already been introduced in previous exercises.

Good workmanship and finish are of primary importance; the production of a large number of models is secondary. The suggested exercises provide for variety in design and construction.

Teachers should demonstrate the correct methods of using the tools, and point out the dangers arising from their misuse. Pupils should assume good healthy working postures.

From the moment the boy commences to use tools he should pay close attention to his working drawing, and every opportunity should be taken to show him the necessity for, and the advantages to be derived from, frequent comparison of the work with the drawing.

All tools should be properly cared for, and the tops of the benches should not be damaged. The room and its belongings should be arranged neatly and everything kept in order. Pupils should be trained to know the place for everything, and to keep everything in its proper place. Different tools required should not be strewn about the benches. Each tool that has served its purpose should be returned to its regular place in the rack or cupboard.

Bench notes, written on cards corresponding to each model, and showing the sequence of development of the different exercises in development, will give the boy sufficient data for proceeding with the work without waiting for the teacher's instruction. Habits of independence and self-reliance are fostered, and the teacher has more time to give to the pupils requiring special attention.

Specimens of models in the course should be hung up in a conspicuous place in the room. A valuable addition to these are development models, *e.g.*, models showing the different stages of the work, or showing the method of setting out the different parts.

*Records.*

Each model when finished should have a mark assigned to it. This mark should be entered together with the mark given for the drawing of the model on a record card.



Collections of timbers, leaves, &c., should be made by the pupils. Specimens of these might be mounted and displayed on the walls of the Manual Training rooms.

In connection with the study of tools, timber, and trees, it is advisable for the pupils to make written pictorial records. These should be entered in special record books.

### *Drawing.*

The inclusion of drawing in a Manual Training Course should have for its ultimate object something more than merely teaching a boy to draw. It should give him practice in observing, forming judgments, and in doing careful and accurate work.

The greater part of the drawing in the Manual Training Room is of the type known as mechanical, but it need not be confined to this branch.

In the early stages the drawing should be made from a finished specimen of the object. Such a specimen should be exhibited and the boys questioned concerning its details and dimensions—the pupils being allowed to measure the different dimensions as the work proceeds.

From the information thus gained the teacher should prepare rough sketches, marking in dimensions, and from these proceed to prepare a finished working drawing. Later, the pupils should take a model, analyse it for themselves, make their own rough working sketches, and then proceed to execute the finished drawing. All drawings must be neat and accurate. The cleanliness of books should receive special attention from the teacher. Pencils should have correct points, and rubbers should be used as little as possible. The pupils should be shown how to use the various drawing instruments required in the work. Most drawings in the Manual Training Room consist of plans, elevations, and sections. The preparation for such drawings involves a knowledge of the principles of orthographic projection, but it is not advisable to enter into an elaborate explanation of these principles with beginners.

At the outset, pupils should be taught to prepare a picture or view of various surfaces of the particular model to be made, such pictures being sufficient to enable them to obtain an idea of the shape and arrangement of the various parts, and the dimensions of any portion of the work.

By the aid of hinged pieces of wood, made to represent the planes of projection, the pupils may be given an insight into the meaning and use of solid geometry. Exercises should also be given in isometric and oblique projection. The title and date should be entered on each drawing made.

### *Light Metalwork.*

(1.) *Wirework.*—Tinned wire of different gauges, *e.g.*, 12, 14, 16, 18 and 20 is used for this work. A large number of useful articles can be made with flat-nosed, side-cutting pliers.

(2.) *Bent Ironwork.*—Strip iron, varying from  $\frac{1}{8}$  in. to  $\frac{3}{8}$  in. wide, is used for this work. The parts of a model are held together with small clips of metal or with rivets. A pair of round-nosed and a pair of flat-nosed pliers are required by each pupil. A few tools for general use are required, *e.g.*, pair of snips, hammer, drill, metal block for riveting. Work may be finished with dull black paint or with Japan.

(3.) *Soldering and Vise Work.*—Tin plate and zinc could be used for soldering work. Tin plate is sold in sheets about 20 in. x 40 in.; 1c, and 1x, are the thicknesses recommended. Vises will be required for filing work in brass, iron, &c. A set of simple tools will meet requirements.



*Correlated Handwork.*

Handwork will attain its full value as a means of education if it is brought into contact with the other branches of school work. It is generally agreed that the various school studies, when correlated with handwork, gain in interest and, conversely, that handwork finds a powerful motive when the objects to be constructed arise naturally from the pupils' other activities.

While there is plenty of scope for correlating handwork with the ordinary subjects, care must be taken to avoid forced correlation or a waste of time in over-illustrating things which are easily understood.

Handwork should be closely associated with drawing throughout the school. The linking up of handwork with the artistic side of drawing is of the greatest importance.

*Literature.*

Fairy tales, nursery rhymes, stories of children in other lands, legends and myths, may be illustrated by means of paper cutting, modelling in paper, cardboard, plasticene, or clay. The sand table may also be used as a means of illustration in story lessons.

Articles required for the dramatisation of stories afford considerable scope for handwork. The making of booklets for stories, poetry, spelling, and covers for school magazines, provides useful exercises.

*History.*

The dramatisation of historical scenes will give abundant opportunity for the manufacture of all kinds of adjuncts, *e.g.*, crowns, sceptres, swords, bows, arrows, &c.

Many other objects illustrating history may be made by the scholars, *e.g.*, dwellings, agricultural implements; land transport—carts, waggons, &c., used in different periods.

Ships.—Dugout, coracle, Viking ship, Norman ship, a galley.

Pottery.—Food vessels, drinking cups.

Castles, shields, helmets, weapons, *e.g.*, spears, cross-bows, swords.

Miscellaneous exercises in plastic modelling, paper-cutting, and cardboard modelling. Nelson's signal, national emblems, national flags, "The Victory." Map showing the route of the Armada. Stephenson's "Rocket," aeroplane.

Dolls dressed in different costumes to represent different personages, *e.g.*, King Alfred, a Crusader, a cavalier.

Making of scrap books, which might contain drawings, maps, and diagrams made by the scholars, as well as pictures and scraps of all kinds collected from outside.

If these books were made and bound by the pupils, this would become in the fullest sense a constructive form of handwork.

*Arithmetic and Geometry.*

Arithmetic and geometry lend themselves very obviously to concrete practical work. The older pupils of the Primary School will derive much satisfaction from the making of apparatus for the use of the pupils of the Infants' School.

In the earlier stages the teaching of number may be based entirely on the concrete; the objects which might be used—strips or squares of paper cut by the children, small objects modelled in paper, clay, &c.—will readily suggest themselves, and the range of possible objects in cardboard, suitable at a later



stage, *e.g.*, set squares, circle maker, ruler, clock face, might be indefinitely extended. Many exercises, *e.g.*, mensuration, drawing to scale, and the graphic treatment of statistics, are closely allied to constructional handwork.

The value of handwork arises especially when areas and volumes are being dealt with.

The comparison of area by means of paper-cutting and folding, the use of the same medium to give the children a clear notion of fractional values, is a case in point that need not be enlarged upon. In geometry, models of the figures, &c., to be dealt with, should be constructed in paper or cardboard, wood, or other material, by the pupils on the basis of the diagrams drawn by them, and their properties should be ascertained by actual observation.

### *Nature Study and Geography.*

*Nature Study.*—The constructional handwork connected with nature study might include, *e.g.*, paper cutting of birds, animals, insects, flowers, trees, &c.; the construction of packets and boxes to hold specimens; simple apparatus used in experiments with seeds, plants, &c.; mounting specimens, and making of charts, *e.g.*, bird chart; making booklets for recording nature study work.

Simple apparatus required in connection with school gardens, *e.g.*, plant sticks, plant labels.

*Geography.*—Modelling of scenes in connection with the lessons on people in other lands, group models to illustrate sea routes, coal-mining industry, modelling geographical features, the making of charts, booklets in which to paste pictures, &c.

Simple pieces of apparatus, *e.g.*, weather vane, compass, paper-pulp relief map.

### *Recreation.*

The opportunities for constructive handwork are not exhausted by an enumeration of the set subjects with which it can be correlated. The making of apparatus required for various school activities and entertainments, or for any social purpose, will afford opportunities for fostering a spirit of co-operation and mutual help.

There is the further and obvious consideration that work with their hands appeals to most boys and girls as a recreation, and should therefore be encouraged from this point of view out of school hours.

An excellent example of the way in which the natural interest that it arouses may be developed, and turned into practical channels, is afforded by the Scout Movement.

The work done by the Boy Scouts for the various proficiency badges is in a high degree calculated to foster self-reliance and resourcefulness.

### *Free Choice Work.*

Opportunity should be given to pupils in each class for work of this character. The projects undertaken may be similar to those attempted in class, but of different design, or they may be pieces of work planned entirely by the pupils themselves.

### *Co-operative Work.*

Pupils should, from time to time, be encouraged to work together in the achievement of a complete piece of work.

Each pupil should take some definite part in the making of the object.

Suitable projects would include the making of models for school use.



## NEEDLEWORK.

The purposes of this course are:—

1. To develop self-reliance, initiative, and energy; to train in habits of neatness, thrift, thoroughness, and order; to arouse love for simplicity of design, and generally to cultivate æsthetic taste.
2. To make our girls intelligent purchasers of the more commonly used fabrics and threads.
3. To arouse the spirit of craftsmanship; to induce rapidity of execution, together with skill, in the use of materials and apparatus. The ideal is that each girl, at the end of the Primary Course, should be able to cut out, fix, and complete unaided a number of garments.
4. To encourage social service.

In trying to attain these ends, it must be remembered that needlework is more than stitchery; it includes habit-training, information about fabrics, trimmings, and threads, knowledge of size, shape and proportions of different garments and household articles, making and cutting out patterns as well as stitching for the purposes of construction, repair, and ornament. Rendering the girl handy with needle, scissors, and machine is a better result than allowing her to finish a garment, cut, fixed, and tacked by the teacher. Our girls must be taught to use a pattern, to do by themselves without waiting to be told what to do next, for the value, to them, lies largely in the mental planning of what is to be done. Strong and even stitching is required in the lower grades, finer, but not ultra fine work, in the 5th and 6th classes. The making of specimens, while necessary for the learning of stitches, does not tend to render needlework lessons interesting, and must be a minor feature, the work being full of purpose. When the garment brought from home is of too simple a type to afford opportunity for the practice of the more difficult processes; these must be done on specimen pieces, and retained for inspection. Formality does not always tend to develop the sewing-habit and love for needlecraft; free choice periods at regular intervals would help the teacher to link up more effectively with the home, and would furnish an opportunity for studying the taste, initiative, skill, and development of each individual. Making small gifts for friends, and for those less fortunate than themselves, will arouse social consciousness.

Courses outlined in programmes must be systematic and progressive, showing a well calculated gradual advance in knowledge and ability on the part of each class. Instruction must not be left to chance, but each lesson planned with foresight to make it really effective. Certain garments should be selected for special treatment, according to the grade; but variety of work will be found good for both teacher and pupil, hence the lists given below allow wide choice, and may be supplemented by the sewing mistress.

The blackboard must be in frequent requisition, the lessons correlated with arithmetic, drawing and spelling. Frequent short periods of questioning, or of class discussion, an occasional writing of answers, would serve to clarify ideas; review should play a prominent part in the instruction. The use of illustrative material is a time-saver—cardboard mounts showing steps in constructive processes will be found useful. A systematic collection of samples of fabrics and threads should be made gradually, the respective uses, prices, widths, &c., noted. Pictures and clippings from newspapers and magazines may be collected with advantage. Putting good



garment specimens before the children will stimulate them; there should be definite encouragement of the art impulse, but decorative work should supplement, not supersede, constructive work, being introduced with discretion.

The sewing-room should radiate its own special influence. A good needlework teacher, even when handicapped by the want of a special room, will make her influence felt throughout the school. The task before her is a responsible one—to make these lessons a means of developing the child in the fullest possible manner. She must remember that her appearance, her care of the school-room, her attitude towards her pupils and her work, are the silent forces that influence more than her words or her knowledge of technique. In estimating her value the point is not so much what she can do, but what her young charges are able to do, and a test of the habits inculcated by her instruction is thought to be the best means of determining the quality of her work.

#### THIRD CLASS.

1. *Materials*.—Talks about the common cotton fabrics and threads, distinguishing selvedge from raw edge.
2. *Processes*.—(a) Tacking, running, hemming, topsewing, chainstitch.  
(b) Setting hems of various widths on rectangular pieces of paper or material, cut to required measure by the children. (Use of tape measure, ruler, or cardboard gauge.) Top sew seam.  
(c) Use of square and oblong as pattern for articles of home use, that may be made (1) without a join, (2) with a join.
3. *Application*.—Making small articles for a doll's bed, then others, graduated in difficulty, for child or her friends, as:—bib, feeder, cover for desk, handkerchief, table runner, duster, tea-towel, kettle holder, needlebook, pin-cushion.
4. *Knitting*.—Use of two knitting needles—simple washer.

#### FOURTH CLASS.

1. *Materials*.—Information concerning the commonly used fabrics and threads (cotton and linen). Need of care in handling and folding materials.
2. *Processes*.—(a) Stitchery as for Third Class, with backstitch.  
(b) Seams (run and fell, French). Sewing on tapes for tying; loops for hanging; joining tapes for drawstrings; sewing on buttons.  
(c) Freehand cutting out of garments with simple curves, e.g., feeders, pilchers, dolls' clothes.
3. *Application*.—(a) New garments as: dolls' clothes; linen, knitting, nightdress, or sewing bag; pillowslip; dust cap; apron, rompers, pinafore, simple underclothing.  
(b) "A stitch in time saves nine." Attention to clothes in wear, renewal of tapes, replacing lost buttons.
4. *Knitting*.—Two needles, pearl and plain, casting off; dishcloth.



## FIFTH CLASS.

1. *Materials*.—Calculating quantities required, and cost. Suitability of needles and thread, and stitches to materials. Simple study of textile products of wool.
2. *Processes*.—(a) Stitchery, as for Fourth Class, but finer. Also herring-boning, featherstitching, blanket stitch; button holes, darning.
  - (b) Flannel seam, simple patching in calico, sewing on hooks and eyes and patent fasteners, gathering, stroking, and setting into a band; plackets (strengthening tape, continuous placket); casings on straight edges sleeve, &c., and on curves (e.g., neck).
  - (c) Cutting out simple patterns for children's underwear.
3. *Application*.—(a) New garments as: knickers, infant's jacket, bathing suit, overall, kimono, pyjamas, petticoat or bodice.
  - (b) Repairing; mending torn plackets and button holes; simple patching; darning hole in stocking web.
4. *Knitting*.—Or crochet woolwork. Baby's singlet, skirt or petticoat; scarf.

## SIXTH CLASS.

1. *Materials*.—Simple study of textiles—silk; choice of trimmings. Calculating quantities and prices of materials suited for special garments; hygiene of clothing; appropriateness of dress.
2. *Processes*.—(a) Stitchery for neatening and securing edges; feather-stitch and other decorative work; darning.
  - (b) Seams; plackets; gussets.
  - (c) Means of attaching and inserting lace and embroidery; tucking.
  - (d) Repairs; darning, patching in print and flannel.
  - (e) Cutting out, by any simple method, outer or undergarments. Study of proportion of length to breadth, parts to the whole, of garments; placing pattern to best advantage to save waste.
3. *Application*.—(a) To new garments as: cooking apron, boy's shirt, princess petticoat, nightdress, jumper, camisole, blouse, skirt.
  - (b) Repairing. Darning worn stockings, hedge tear, lengthening by false hem; utilising best portions of old garments to form smaller articles of use; refooting a stocking.
4. *Knitting*.—Baby's bonnet, child's cap, booties, jumpers.



## PHYSICAL EDUCATION.

## CLASS I.

Physical Education in this Section should be given wholly through play in Free Games and Organised Games. The latter should include:—

1. Finger Plays.
2. Sense Games.
3. Games for General Activity.
4. Quiet Games.
5. Singing Games.
6. Rhythmic Steps.
7. Simple Rhythmic Movements (imitative).
8. The use of Apparatus, such as balls, bean-bags, football, skipping ropes, &c.
9. Breathing Exercises.

## CLASS II (8 years).

Correct Standing Position.—Hips firm, free marching, running, skipping, &c., as in Follow the Leader. Breathing Exercises, free games and organised games. (The latter should include games similar to those prescribed for Class I, together with more advanced Rhythmic Steps and Movements and Simple Folk Dances.) (Cecil Sharp, Country Dances, Part I.)

## NOTES on Physical Education for Classes I and II.

*Finger Plays.*—Books recommended are Finger Plays (Emilie Poulson); Songs of the Child World (Riley and Gaynor), Parts I and II; Froebel's Mother Play.

*Suggested Games for General Activity.*

Class I.—Suggested Games for General Activity.—Bean Bag Scramble, Circle Race, Dodge Ball, Imitative Play, King of the Ring, Musical Circles, Pop goes the Weasel, Bogey Ball, Sheep, Sheep Come Home, Simple Race Games, Musical Chairs, Wolf and Lamb, and Bean Bag Catch; Balls in the ring or basket, Nine pin Game.

Class II.—Guarding the Fortress, Club Snatch (Dog and Bone), Three Blind Mice, Tug-o'-War, Circle Stride Ball, Black Peter, Circle Pass Ball, Steer the Ship, Number Race (Reds and Blues), Bouncing Balls, Follow the Leader, What is the Time, Mr. Wolf? Whistle Race, Crusts and Crumbs, Giant Strides, Wandering Ball, Giants and Dwarfs, Games of Tag, and Touch Finger.

Books recommended.—Games for Playground, Home, School, and Gymnasium (Jessie Bancroft); Suggestions in regard to Games (London Board of Education), and Physical Exercises for Children under Seven (London Board of Education).

*Singing Games.*—Class I.—The Chimes of Dunkirk, Punchinello, Lubinloo, Did you Ever See a Lassie? The Farmer in the Dell, Lads and Lasses, How d'ye do, My Partner, Dance a Little Partner, Mulberry Bush, Oats and Beans and Barley, Nuts in May, Ring a Ring o' Roses, Green Gravel, See this Pretty Little Girl of Mine, Little Bird you are Welcome, Jack in the Box, Peter Pan, Wall-flowers, and Hulla-Baloo-Bullah,



Class II.—Same as for Class I, also Hansel and Gretel, Jolly is the Miller, the Muffin Man, the Needle's Eye, Round and Round the Village, Welcome Little Traveller, The Brownies, Up to the Moon, Dance in a Ring, Skipping Game, Lavender's Blue, the Chinese Fan, the Daisy Chain, Rig a Jig Jig, Come to Play, and Circus.

Books recommended for Singing Games.—Children's Singing Games (Marie Hofer), Singing Games (Kate Bremner), Children's Singing Games (Gommie and Sharp), Boston Songs and Games, Rhythmic Action Plays and Dances (J. P. Moses), Singing Games (Gaynor), Holiday Song Book, Song Stories for the Kindergarten (Hill), 100 Singing Games (Kidson).

*Quiet Games.*—Classes I and II—Rachel and Jacob, Puss in the Corner, Hide the Thimble, Blind Man's Buff, Ball Games, Quick Jack, Change Circles, and Drop Ball.

*Rhythmic Steps.*—Class I—Run, High Step, Skip, First Balance Step, Slow Run, Gallop.

Class II.—Same as for Class I, also Polka, Second Balance Step to three-four time, New Skip to two-four time, Barn Dance Step C., and Simple Folk-dancing Steps. (Cecil Sharp—Country Dances, Part I.)

The following works bearing on play in education are also recommended:—The Psychology of the Organised Game (Reaney), Education by Plays and Games (Johnson), Play in Education (Lee). A Child's Garden of Song (Bayley and Ferguson), Suggestions in Regard to Games (Part II), Children's Singing Games (Part II) (Marie Hofer), and Children's Play (Wood); School Gymnastics (Jessie Bancroft).

As above indicated, the lists of games are merely suggestive and must not be regarded as complete. Many teachers will be able to add considerably to these lists, and, in some instances, no doubt, will organise suitable games that are entirely new.

The play spirit should enter into all infant training, the constant aim of the teacher being to keep the work fresh, varied, and interesting.

Whenever possible the time set apart for physical culture should be spent in the open air. Games for general activity and singing games are most successful when thus taken.

Although instrumental music is a valuable aid to the successful carrying out of rhythmic steps and movements it is not indispensable, as much good work can be done without it, one child acting as leader and the others imitating.

As the aim of Infant School physical culture is the development of a good position of the body and graceful carriage (deportment and poise), care should be taken to secure a good standing position during all lessons.

Formal breathing exercises should not be given too early. Vigorous play movements and active games will create a necessity for deep breathing, and the habit of breathing through the nose with the mouth closed should be encouraged. Any nasal obstruction which prevents this should be brought for medical inspection and advice.

Folk-dancing should begin in the last half year of Class 2, and then only the simplest dances attempted.

Since children learn more by imitation, the teacher should at all times enter heartily into the spirit of the game, playing with the children and showing an appreciation of the enjoyment felt by the little ones in their play and rhythmic exercises.



As exercise of the lower limbs is provided for by the rhythmic steps, simple rhythmic movements should, generally speaking, tend to exercise the arms and body. During this type of exercise, the child chosen as leader for the time being selects any movement he pleases and the others imitate him. If the teacher finds that some muscles are being exercised continually to the exclusion of others, she will take her turn as leader and substitute new movements to remedy this defect.

It is again emphasised that the play element should here be most pronounced. Details of correct form are not required and uniformity of standard cannot be expected. It is helpful if the children have some purpose in the movements, *e.g.*, tossing hay, hauling up the flag, rowing a boat, blowing feathers.

Whilst all exercises prescribed for Class I are repeated for Class II, the children of the latter class will be expected to do the exercises better, to respond to stimuli with more accuracy, and generally to perform movements and to play games with more purpose and control.

#### THIRD CLASS.

*Drill (Boys).*—Formation of class in two ranks, dressing with half intervals, positions of attention and stand at ease, numbering in twos and proving, dressing with intervals and opening ranks, marking time, the turnings by numbers, saluting, reforming ranks, marching, dismissing a class.

*Physical Training (Boys).*—Simple exercises with easy starting positions, *vide* Chapter III and free "Syllabus of Physical Exercises," deep-breathing, organised games, maypole, folk dancing, polka, &c.

*Drill and Physical Training (Girls).*—As for boys, but omitting saluting. Games for General Activity as for Class II.

Folk Dances ("Country Dances," by Cecil Sharp).

Christchurch Bells	..	..	..	Part IV
The Mary and Dorothy	..	..	..	Part IV
The Mock Hobby Horse.	..	..	..	Part IV
Jenny Come Tie my Cravat	..	..	..	Part IV
Trip to Kilburn	..	..	..	Part IV
Lillie Burlero	..	..	..	Part IV
Gathering Peascods	..	..	..	Part II

#### FOURTH CLASS.

*Drill (Boys).*—Formation of class in two ranks, dressing with half intervals, numbering consecutively and proving in fours, the turnings—judging the time, marking time, saluting, dismissing a class, marching in line and in file and changing direction, changing step while marking time and marching, variations of step, dressing with intervals and opening ranks.

*Physical Training (Boys).*—Exercises as in Chapter III, "Syllabus of Physical Exercises" with progressive commencing positions of feet and arms, deep-breathing, swimming, organised and free games, dancing. (The Country Dance Book, Part I, Cecil J. Sharp.)



*Drill and Physical Training (Girls).*—As for boys, but omitting saluting

Folk Dances ("Country Dances," by Cecil Sharp).

Sweet Kate .. .. Part III

Sellenger's Round .. .. Part IV

If all the World were Paper .. .. Part III

London is a Fine Town .. .. Part II

The Black Nag .. .. Part II

Newcastle .. .. Part II

New Bo-peep .. .. Part II

#### FIFTH CLASS.

*Drill (Boys).*—Squad drill in two ranks, *vide* "Infantry Training," latest edition.

*Physical Training (Boys).*—Exercises as in Chapter III, "Syllabus of Physical Exercises," varied with advanced starting positions and combinations of exercises, *vide* pages 165-168, Appendix E. "Syllabus of Physical Exercises." Deep-breathing, organised and free games, swimming and life-saving drill, dancing and gymnastic steps, school sports. (*Girls*).—As for Fourth Class.

Folk Dances ("Country Dances," by Cecil Sharp).

Ruffy Tufty .. .. Part II

Jenny Pluck Pears .. .. Part II

Picking up Sticks .. .. Part IV

The Boatman .. .. Part IV

Confess .. .. Part III

Oaken Leaves .. .. Part IV

Put on thy Smock on a Monday .. Part IV

#### SIXTH CLASS.

*Drill and Physical Training.*—*Boys*—Same as for Fifth Class. *Girls*—Same as for Fifth Class.

NOTE.—Attention is drawn to the practice of girls in such games as Hop-Scotch of continually using the same foot in hopping and of keeping the other inactive. This practice must lead to unequal development, besides which it results in one foot requiring half-soling long before the other. A little attention on the part of the teacher to the revision of the rules of the game would remedy these defects.

Folk Dances ("Country Dances," by Cecil Sharp).

Parson's Farewell .. .. Part II

Hey, Boys, Up We Go .. .. Part II

The Merry Conceit .. .. Part III

The Old Mole .. .. Part III

Chelsea Reach .. .. Part III

The Maid's Morris .. .. Part IV

Morris Dances ("Cecil Sharp; Morris Books").

The Blue-eyed Stranger .. .. Book I

Shepherds' Hey .. .. Book I



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